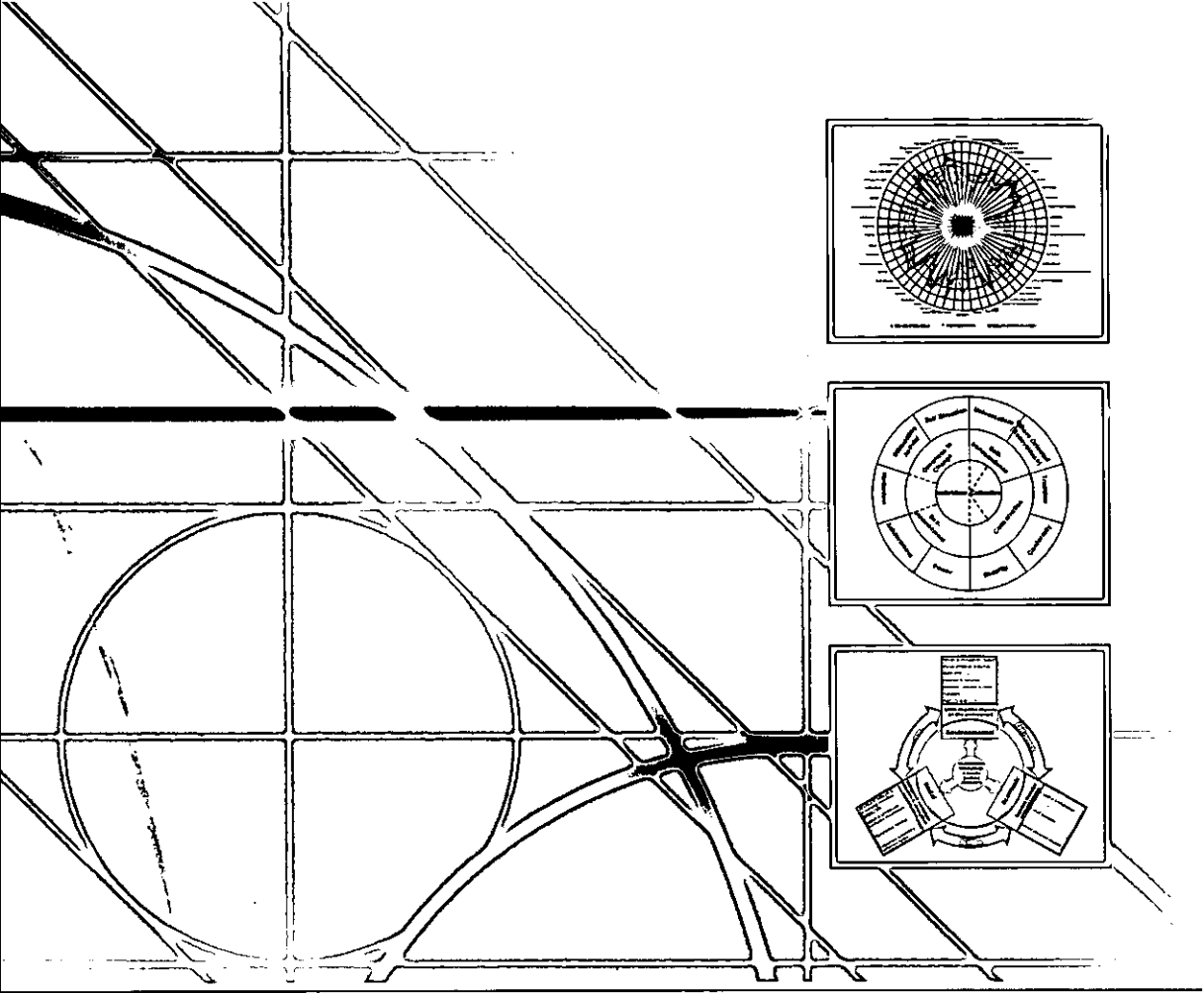


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Organisational Development: Values and the Sustainable Workplace

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ORGANISATIONAL DEVELOPMENT: VALUES AND THE SUSTAINABLE WORKPLACE

By
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A dissertation thesis submitted in partial fulfilment of the requirements for the award of the degree Doctor of Engineering (EngD), at Loughborough University

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ABSTRACT

Organisations exist. An organisation is not just a group of people, a workplace, a structure or system; it is a combination of these and many other aspects involved in its operation. In recent years, the nature and needs of organisations have changed dramatically, challenging them to rethinking how they organise themselves and accomplish their goals in a sustainable manner.

This is an important, but not easy, task. The research presented in this thesis aims to contribute to organisational development theory and practice, in terms of how to articulate collective organisational values, and upon which to establish a sustainable workplace framework to govern and improve organisational performance. The research was undertaken in two phases. Phase 1 focused on researching organisational values, which is considered as a critical step towards the development of sustainable workplaces. A values and behaviours study was conducted in the UK offices of the sponsoring company. Schwartz's values survey instrument and values theory are, for the first time, applied extensively in an organisational context, as opposed to the comparative intercultural research conducted at the national/cultural level. The study used a structured, mixed methods approach which involved virtually all employees, whose values profiles were collected and analysed through an organisation-wide survey. Follow-up workshops and post workshop activities with a company Values Group facilitated the sharing of common values; they then helped staff representatives develop their own organisational values statements, independent of senior management, before a final stage of negotiation. Meanwhile, a set of core-values-related workplace behaviours and relevant mechanisms were identified and communicated across the whole organisation. The core organisational values are fundamental in governing the workplace behaviours, and the mechanisms represented desirable work practices. This values-based approach facilitated the

identification of the grassroots demand for continuous improvement of workplace environmental, social and economic performances, hence formed a foundation for the development of sustainable workplaces.

The findings from the first phase revealed the core values of the organisation, highlighted the importance of applying the principles of sustainable development to the workplace context, which prompted further research into the nature of a sustainable workplace (phase 2). Although there is an increasing interest in sustainable workplace development, as an emerging and fast developing area, the body of research is still fragmented and unbalanced. In order to establish a holistic and balanced approach to the development of sustainable workplaces, available guidance documents were systematically categorised, compared and synthesised within a clear framework, to facilitate easy understanding and practice. This revealed that, at present, emphasis tends to be placed on environmental impacts arising from workplace activities, and hence the promotion of environmental awareness among the workforce. Whilst this may be appropriate in itself, it is of concern that other key aspects of sustainable development (i.e. social and economic aspects) have been overlooked to a significant extent. A sustainable workplace framework was therefore established which provides a balanced approach for governing all aspects of the workplace development. The data obtained from phase 1 not only highlighted the need for such a balanced approach, but also inform the identification and prioritisation of the indicators within the framework, which offer useful measures for organisational behaviours. Meanwhile, the framework can be used as a tool to facilitate the integration of values into workplace development.

The research concludes that to develop an organisation in a sustainable manner, a set of collective organisational values must be articulated, which will serve as guiding principles of workplace behaviours and practices, and therefore dictate workplace performance. The shaping of collective organisational values should be

based on a clear understanding and communication of employees' personal values, and that Schwartz's circumplex model of human values and associated survey instrument are helpful neutral framing devices to initiate and structure such a debate. As all the elements of sustainability are rooted in values, the identification of the collective organisational values could be considered as a critical step towards the development of sustainable workplaces. Furthermore, the research highlighted that the sustainable workplace is a multidimensional concept which requires holistic thinking. The conceptual framework developed in this research joins together the key aspects/criteria of sustainable workplaces, with the aim to balance the workplace environmental, social and economic performances. By linking the organisational values and related key business issues to workplace sustainable development criteria, the development towards sustainable workplaces could consequently enhance organisational values, therefore improving organisational performance as well as employees' quality of life at work.

Keywords *Behaviours, Management, Organisation, Sustainable development, Values, Workplace*

PREFACE

The work presented within this thesis was conducted in partial fulfilment of the requirements of an Engineering Doctorate (EngD) at Centre of Innovative Collaborative Engineering (CICE), Loughborough University. This thesis has been produced in compliance with CICE's Thesis Guidelines and explains, in a shortened fashion, the learning and research conducted during the past four academic years.

ACRONYMS/ABBREVIATIONS

AEBN	Auckland Environmental Business Network's
BCO	British Council for Offices
BREEAM	Building Research Establishment Environmental Assessment Method for Offices
BSI	British Standard Institute
CABE	Commission for Architecture & the Built Environment
CASBEE	Comprehensive Assessment System for Building Environmental Efficiency
CEO	Chief Executive Officer
CICE	Centre for Innovative Collaborative Engineering
CSR	Corporate Social Responsibility
CVF	the Competing values framework
DEFRA	Department for Environment, Food and Rural Affairs
EngD	Engineering Doctorate
EPSRC	Engineering and Physical Sciences Research Council
ES	Ecological Sustainability
FKC	The Danish Trade Union Movement's Centre for Competence Development
GSA	U.S. General Service Administration
HVSM	Hofstede's value survey module
IS	Industrial supervisor
LEED™	Leadership in Energy and Environmental Design
LO	The Danish Confederation of Trade Unions
HS	Human Sustainability
JSBC	Japan Sustainable Building Consortium
NGO	Non-Governmental Organisation
RE	Research Engineer
RVS	Rokeach value survey
SD	Sustainable Development
SVS	Schwartz values survey
TUSDAC	The Trade Union Sustainable Development Advisory Committee
UKSDC	UK Sustainable Development Commission
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNSD	United Nations Division on Sustainable Development
VALID	VALue in Design
VBM	Values-Based Management
WBCSD	World Business Council for Sustainable Development
WCED	World Commission on Environment and Development

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LIST OF PAPERS

The following papers, included in the appendices, have been produced in partial fulfilment of the award requirements of the Engineering Doctorate during the course of the research.

Paper 1 (See Appendix 1)

Zhang, X., Austin, S. A. and Glass, J. (2006) Linking individual and organisational values: a case study in UK construction. In: Boyd, D (Ed) *Procs 22nd Annual ARCOM Conference*, 4-6 Sep 2006, Birmingham, UK, Association of Researchers in Construction Management, pp. 833-842.

Paper 2 (See Appendix 2)

Zhang, X., Austin, S. A., Glass, J. and Mills, G. (2008) Toward collective organisational values: A case study in UK construction. *Construction Management and Economics*, Volume 26, October 2008, pp.1009–1028, Routledge, UK.

Paper 3 (See Appendix 3)

Zhang, X., Austin, S. A. and Glass, J. (2008) Understanding values diversity within the organisation: A case study in UK construction. *The International Journal of Diversity in Organisations, Communities and Nations*, Volume 8, Issue 5, CGPublisher, Australia.

Paper 4 (See Appendix 4)

Creating the Sustainable workplace: A REVIEW of relevant guidance (Ready to submit)

1 INTRODUCTION

1.1 INTRODUCTION

This chapter sets out the background to the research conducted in partial fulfilment of the requirements of an Engineering Doctorate (EngD) at Centre of Innovative Collaborative Engineering (CICE), Loughborough University. It introduces the general subject domain, the context of the research and the aim and objectives of the project. The structure of the thesis is also presented. In addition, it provides a synopsis of each of the published papers that should be read in conjunction with the discourse.

1.2 BACKGROUND TO THE RESEARCH

1.2.1 General subject domain

Today's ever-changing business environment challenges every organisation that striving for continuous success. During recent decades there have been several organisational trends that forcing organisations to adapt in order to remain competitive in markets; these include the need for: a) quality and customer orientation; b) greater professionalism, autonomy and responsibility; c) 'bosses' to evolve into leaders/facilitators; and d) 'flatter' and more agile organisational structures (Dolan and Garcia, 2002). As a result, the nature of organisations is changing dramatically, challenging organisations to rethink the way they organise themselves to accomplish their goals in a sustainable manner.

In order to help organisations to be better equipped to face these challenges, this research focuses on two critical and interrelated areas of organisational development: the establishment of organisational values and the creation of the sustainable workplace. Many believe that a set of collective organisational values is the driving force and underlying philosophy for the business success, and help

to clarify a company's identity and rally employees (Lencioni, 2002). Hence manifesting organisational-shared values is a viable approach to achieve and sustain positive organisational development. Meanwhile, in recent years, there has been a strong desire amongst both employees and business leaders to develop their workplaces against SD criteria. The creation of such workplace should be informed by organisational values, as well as facilitate the integration of organisational values into work practice.

1.2.1.1 Organisational values

Values have held a prominent place in both business ethics and organisational theories, and in recent years there has been a detectable shift in focus from management by instructions and objectives to management by values (Blanchard and O'Connor, 1997; Dolan and Garcia, 2002), or values-based management (VBM) (Pruzan, 1998). Pruzan (1998) contended that there has been a contemporary shift in management perspective from a paradigm of 'control' to a paradigm of 'values'. He argued that the change was due to the following six reasons:

- 1) traditional power is declining in democratic societies with flat organisations;
- 2) leaders are losing contact with reality in large, complex organisations;
- 3) the language of money is too narrow;
- 4) stakeholders have a right to be heard and corporations have social responsibilities;
- 5) bright, creative, motivated, responsible and loyal employees seek meaningful work, personal development, and harmony between their own values and the organisation's values; and
- 6) it pays off.

VBM aims to create conditions under which all employees can perform independently and effectively toward a single objective (O'Toole, 1996). It has three purposes, to: a) simplify organisational complexity created by the need to adapt to changes; b) guide strategic vision towards the future destination of the company; and c) secure commitment of every employee to deliver high quality work performance (Dolan and Garcia, 2002).

In response to these changes, many organisations have instituted decentralised structures, i.e. changed from top-down management and closed departmental functions, to more horizontal structures of open and cross-department communication, both of which rely more on a shared understanding of their core purpose and core values (Vogelsang, 1998). Some organisations now devote significant energy to integrating values into their work practices, i.e. using values as guiding principle to shape the customary way of operation or behaviour at work. Many of them (e.g. General Electric, Microsoft and Levi Strauss) have achieved enduring success.

Nevertheless, VBM is by no means a quick win for organisations. It requires a clear and thorough understanding of organisational values in the first place, and continuous efforts to instil these into organisational behaviour in the long term. Many believe organisations should have values that both reflect collective values of all employees and align with individual values (Sawhney, 2002; Peat, 2003; Jaffe and Scott, 1998); however, most corporate values are generated by those in a leadership position – this often fails to address employees' personal values. Whilst there persists considerable confusion about how organisational values should be developed, there is a dearth of literature offering guidance and suitable approaches.

This research asserts the importance of linking personal and organisational values. It has developed a mixed methods approach to establish collective

organisational values and identify related organisational behaviours, which was implemented successfully in the sponsoring company for this project.

1.2.1.2 Sustainable workplace

In recent years, the notion of sustainable development (SD) has become well known and is recognised increasingly at all social levels of society. The classic definition of SD was published by the World Commission on Environment and Development (WCED) in 1987 as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (WCED, 1987) This definition gave a focus to SD by appealing for equality between generations and refers to the reconciliation of social justice, ecological integrity and the well being of all living systems on the planet (Moore, 2005).

Since 1987 the reach of SD has extended beyond government into the world of business and beyond. The main catalyst was the publication of the Rio Declaration and Agenda 21 (UNCED, 1992), which reinforced the policies that affect the flow of global finances and trade, and are crucial for business. The role of the business community in addressing SD is seen to be particularly important. As corporations are the main generators of wealth and powerful institutions in society, they are well placed to use their influence to accelerate progress toward sustainable development (Usui, 2003; Rotheroe et al., 2003). Moreover, corporations are under pressure to comply with more stringent legislation and to satisfy other demands, such as consumer preferences, relations with local communities, and investor requirements, as exemplified in the concept of corporate social responsibility (CSR). Organisations started to realise that they have to take responsibility for nature and society, because without these there could be no business (Elkington, 1997).

Recently, the UK Turnbull Report emphasised the need to build reputational capital, pointing out that 'a company's social, ethical and environmental working

practices can make or break a brand name and affect share prices' (quoted in Preston, 2000). Along the same line, the World Business Council for Sustainable Development (WBCSD) believes that the leading global companies of 2020 will be those that provide goods and services and reach new customers in ways that address the world's major challenges – including poverty, climate change, resource depletion, globalisation and demographic shifts (WBCSD, 2006). In other words, a company's market position will be determined by its performance against SD criteria. Seemingly sustainable behaviours would give companies not only legitimacy, but also provide new opportunities for learning and developing strategy (Zadek, 2007, p.246). Understandably then, there is a widespread and growing interest in SD among business actors.

As part of this broad movement towards sustainability, there is a strong desire amongst both employees and business leaders to apply the principles of SD and in some instances to develop their workplaces in a more sustainable manner. More and more employees have strong expectations of workplace safety and heightened environmental awareness, and are searching for more meaningful work, particularly for work that makes a social and ecological contribution as well as providing an income (Dunphy et al, 2003, p.55). In fact, as claimed by Lund (n. d.), the need for such change is urgent, 'since some of the sustainability efforts deal with very extensive social and global problems that are not included in traditional strategies of an eco-friendly company or a work place that lives up to social standards and occupational health and safety standards.'

As one of the four values of the sponsoring company, sustainability is of great importance for the employees. As such, the move towards a sustainable workplace becomes unavoidable. In response, this research reviewed sources of practical guidance and offers direction for refining the concept of sustainable workplaces. It highlighted the need for a holistic and balanced approach to

developing sustainable workplaces, and proposed a conceptual framework for the sustainable workplace development.

1.2.2 Context of the research

This research project was initiated by the industry sponsor Currie & Brown, in collaboration with CICE at Loughborough University. Currie & Brown was established in 1876 and is now a leading professional construction management services business, which provides advice to its clients on reducing risk and delivering value in the use, modification, repair and construction of built assets of every kind, from seabed pipelines to the world's tallest buildings. It has 16 offices across the UK and several established offices in Australia, Europe, the Middle East, Asia, the Americas and Africa (www.curriebrown.com).

In 2004, when this project was initiated, Currie & Brown reached a critical point in its evolution. Following three years (1999-2002) of incorporation from Partnership Company to Private Limited Company and a period of consolidation, the organisation faced great challenges as well as opportunities to set a clear vision for its future. An investigation conducted by an independent management consultant revealed that in Currie & Brown, the perceptions both internally and externally at that time were confused, polarised and expectant (Ward, 2005). The challenge was how to: align consistent messaging and corporate behaviours with a clear strategy and an integrated communications plan; take every employee through a development programme to internalise the new identity; and in the meantime explore ways to translate this into day-to-day activity, so that the organisation's business performance could be improved. These challenges stressed the need to establish a cultural identity compatible with its new legal status, as well as the opportunities to set a vision for its future.

Meanwhile, the traditional hierarchical organisational structure inherited from the previous partnership culture was preventing the company from responding

quickly to the changing customer and market needs, and acted as a communication barrier between its 16 UK offices. The rivalry between offices forced them to make decisions which benefited themselves rather than the business as a whole. The Group CEO set out the intention to move the business towards a more client-centric approach and break the office silo structure. A set of strong, concise and meaningful values that 'live and breathe' throughout business operation was needed. However, although the company had formal vision and mission statements, these were compiled by senior management and had little emphasis on organisational and human values. Senior management accepted the desirability of establishing a set of authentic organisational values formulated around the commonly held values of the staff, and endorsed an organisation-wide values and behaviour study, which consequently prompted further research on sustainable workplaces with the aim to investigate ways to embed sustainability values into workplace development.

1.3 AIM AND OBJECTIVES

1.3.1 Project aim

The aim of this EngD research project was to identify and test an effective way of developing the potentially powerful connection between the values of a company and its employees, and explore ways to embed the collective organisational values into business practice to create a more sustainable workplace.

1.3.2 Objectives

The aim of this research was achieved through two research phases with the following objectives:

Phase one: Organisational values and behaviour study

Overall objective: To identify and test ways in which the collective organisational values can be developed.

Objective 1: To reveal and understand employees' personal values.

Objective 2: To identify organisational shared values.

Objective 3: To identify core values related behaviours and implementation mechanisms.

Objective 4: To develop a set of collective organisational values and behaviours statements for the sponsoring company.

Phase two: Sustainable workplace research

Overall objective: To explore ways to embed the collective organisational values into business practice to create a more sustainable workplace.

Objective 5: To refine the concept of a sustainable workplace

Objective 6: To summarise the state-of-the-art in sustainable workplace development, and identify main aspects and gaps in the available practical guidance.

Objective 7: To establish a sustainable workplace framework for organisations to govern and monitor workplace sustainable development.

Objective 8: To develop bespoke indicators for the sponsoring company based on the collective organisational values, and hence facilitating the effective management of its workplace sustainable development.

1.4 SCOPE AND DEVELOPMENT OF THE RESEARCH

Initiated in 2004, the research was originally titled 'Lean Office Environment', which aimed to identify and test ways in which the design and operation of offices and the business operations they support can be improved. In defining the research questions, it was decided that a values study should be carried out within the company to:

- 1) address Currie & Brown's business needs as discussed in section 1.2.2;
and
- 2) understand people and culture in the business, which is considered by many researchers and practitioners as an essential step to developing a better workplace.

Supported by the management and employees of Currie & Brown, the values and behaviour study has been successfully carried out within the company, which included an organisation-wide values survey and six values workshops. It involved more than 90 percent of the employees and brought management and staff together to identify and develop collective organisational values and key behaviours. A set of organisational values and behaviour statements were established for Currie & Brown.

As the values study progressed, it became more and more important, and was in the organisation's best interest, to embed these values into business practices. As one of the four values of Currie & Brown, sustainability is rising up the agenda, both within the company and society. Within the company, there was a strong desire amongst employees to apply the principles of SD to the business and develop the workplaces in a more sustainable manner. Meanwhile, Currie & Brown, which works with many leading organisations, was becoming increasingly aware that its business partners are willing to work with people that have

sustainability in their mind. Therefore, the company's market position will be determined by its performance against SD criteria.

In response to these internal and external needs, the research moved to the next phase to explore ways to develop sustainable workplaces. The available guidance on creating sustainable workplaces was reviewed and systematically categorised, compared and synthesised. This formed the base upon which a sustainable workplace framework was established. In addition, a set of indicators were identified for Currie & Brown, with reference to the key organisational issues revealed in the values and behaviours study. The framework provides a balanced approach for governing the environmental, social and economic aspects of the workplace development, and the indicators defined within the framework offer useful measures for organisational behaviours.

A brief outline of the project and the processes within each phase is given in Table 1.1. It provides an overview of the research development process during the four-year research period. As shown in Figure 1.1, the project commenced with a literature review to explore the theory of human values, organisational values and the relationship between the two; methods and instruments available to understand and measure values were also reviewed and compared, such as the Rokeach value survey (RVS), Hofstede's value survey module (HVSM), the Competing values framework (CVF) and Schwartz values survey (SVS). The next stage of the research involved an organisation-wide values survey and six values workshops in the organisation. During this process, with the strong support from the company CEO and the industrial supervisor (IS) of this project, a multi-office values group was set up, which represents all the employees within the company and aimed to explore the core values of the company. The group was managed by the IS and coordinated by the RE. Many presentations, telephone conferences, office meetings and pre- and post- workshop activities were led by the research team including the academic supervisors, IS and RE, together with the values

group members. The whole process determined a set of collective organisational values based on employees' personal values. The key organisational behaviours and implementation mechanisms were also identified and prioritised. Furthermore, in order to embed the 'sustainability' values into workplace development, available practical guidance was reviewed and analysed, from which a conceptual framework was developed to improve an organisation's environmental, economic and social performance in a holistic way. The findings of each stage of the research were published as scientific papers in refereed journals and conferences (See Appendix 1 to 5).

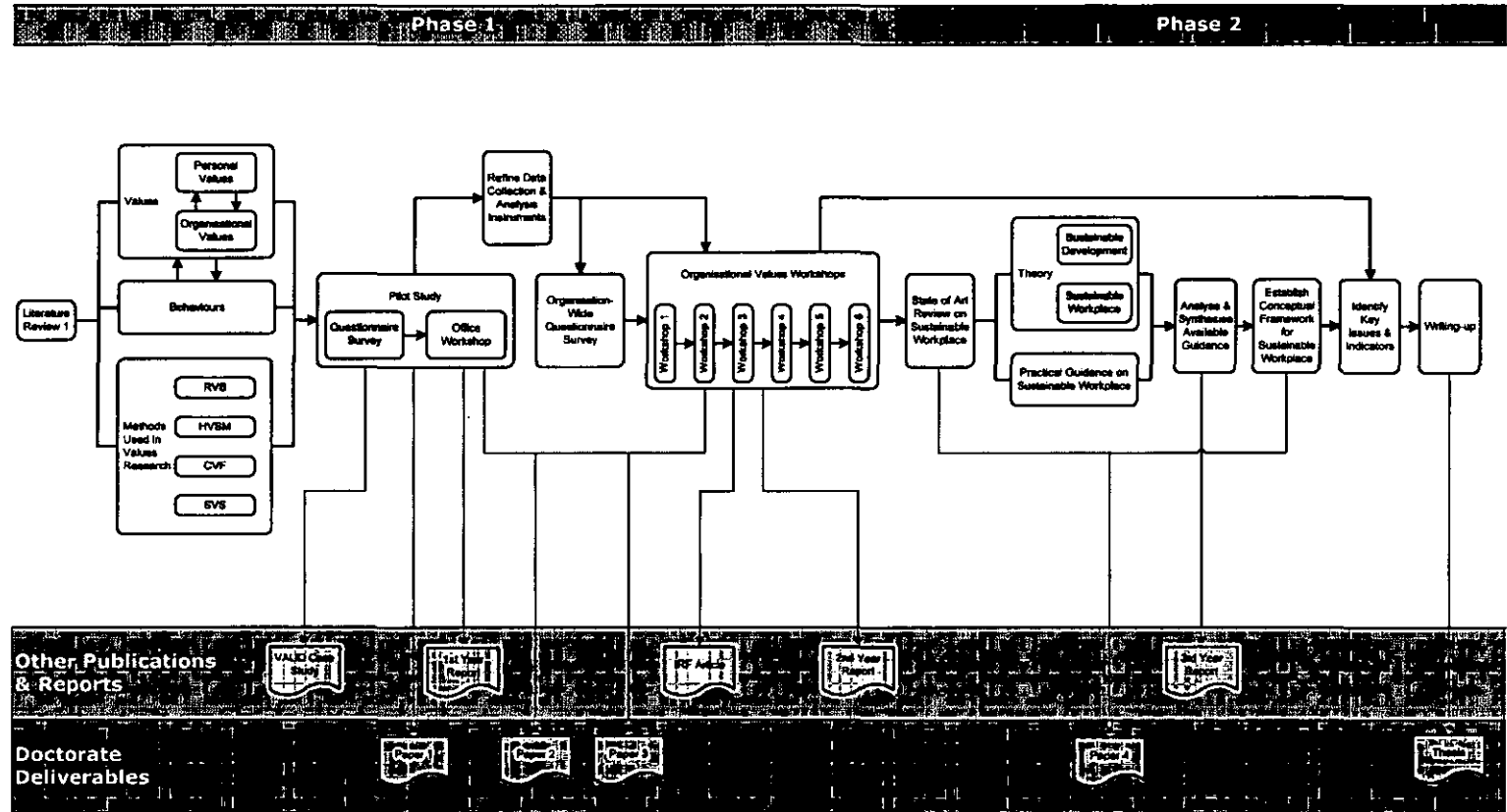


Figure 1.1 Map of research development process

1.5 STRUCTURE OF THE THESIS

This report documents the work undertaken in the four-year period of this EngD research project. The structure of the report is as follows:

Section 1 introduces background to this EngD project, and states the aim, objectives and the scope of the research. The structure of the thesis and a synopsis of each of the published papers are also presented.

Section 2 reviews the previous research in this research subject area and highlights the novelty of this EngD research.

Section 3 reviews a range of research methods and highlights those adopted for this EngD research project.

Section 4 presents the research undertaken to meet the objectives of this project, including the values survey and workshops conducted in the industry sponsor company, and the process of embedding 'sustainability' value into the workplace development.

Section 5 discussed the research findings from phase 1 and 2, and the interrelationships between these two phases.

Section 6 concludes the research outcomes and presents the impact on the industrial sponsor organisation and its implications for the wider industry. The critical evaluation of the research was presented, and recommendations for industry and further research were provided.

Appendix 1-5 include the five scientific papers published during this research. These papers are essential part of the research and should be read in conjunction with the theses.

Appendix 6-9 presents supporting materials including a case study in the VALiD brochure, the values questionnaire, summary of the mechanisms analysis, and

the conceptual sustainable workplace framework with key indicators for the industrial sponsor.

1.6 SYNOPSIS OF PAPERS

To summarise and disseminate the research findings of this project, four scientific papers have been published during the four-year research period (Table 1.1). The full bibliographical references are provided, together with the status of the paper, and a brief description of its contribution to the fulfilment of the research aim and objectives. Each paper has been identified by a paper number and the corresponding appendix number.

An article titled Building on Values was published in Innovation and Research Focus Issue No 66 in June 2006(See Appendix 5). The newsletter has been distributed with New Civil Engineer magazine in August 2006 issue, and generated much interest from the readers. Many have contacted us for further details of the research, including a company manager, an HR director, a government officer, some researchers interested in 'values', and a Civil engineer leading a multi-national project team in the USA.

Table 1.1 List of publications

ID	Title	Journal/ Conference	Status	Full bibliographical references & Paper description
Paper 1 Appendix 1	Linking individual and organisational values: a case study in UK construction	Proceedings of the 22nd ARCOM Conference	Published	<p>Zhang, X., Austin, S. A. and Glass, J. (2006) Linking individual and organisational values: a case study in UK construction. In: Boyd, D (Ed) <i>Proc 22nd Annual ARCOM Conference</i>, 4-6 Sep 2006, Birmingham, UK, Association of Researchers in Construction Management, pp. 833-842.</p> <p>This paper discusses the needs to link individual and organisational values, and presents the process and findings of a pilot values study within the sponsoring company.</p>
Paper 2 Appendix 2	Toward collective organisational values: A case study in UK construction	Construction Management and Economics	Published	<p>Zhang, X., Austin, S. A., Glass, J. and Mills, G. (2008) Toward collective organisational values: A case study in UK construction. <i>Construction Management and Economics</i>, Volume 26, October 2008, pp.1009-1028, Routledge, UK.</p> <p>This paper presents a unique mixed-method approach in developing organisational values based on an organisation-wide values and behaviour study conducted in the sponsoring company. It is argued that the shaping of collective organisational values should be based on a clear understanding and communication of employees' personal values, and Schwartz's circumplex model of values and associated survey instrument are helpful framing devices to initiate and structure such a debate.</p>
Paper 3 Appendix 3	Understanding values diversity within the organisation: A case study in UK construction	The International Journal of Diversity in Organisations, Communities and Nations	Published	<p>Zhang, X., Austin, S. A. and Glass, J. (2008) Understanding values diversity within the organisation: A case study in UK construction. <i>The International Journal of Diversity in Organisations, Communities and Nations</i>, Volume 8, Issue 5, CGPublisher, Australia.</p> <p>This paper highlights the importance of understanding values diversity within the organisation, and offers a viable method for exploring and managing such diversity, therefore improves the diversity management in the workplace.</p>
Paper 4 Appendix 4	Creating the Sustainable workplace: A review of relevant guidance		Ready-to-submit	<p>This paper reviews sources of practical guidance on sustainable workplace. It offers direction for refining the concept of sustainable workplaces, and highlighted the needs for a holistic and balanced approach to developing sustainable workplaces. A sustainable workplace framework was also proposed with the aim to facilitate such development.</p>

2 RELATED WORK

2.1 INTRODUCTION

The chapter sets this EngD research in the context with respect to work previously carried out within the subject domains. The focus of this chapter was threefold:

- 1) To review the theories of values and behaviours, as well as available implementation methods in the business environment; these provide a sound knowledge foundation upon which the organisational values and behaviour study in the sponsoring company was established;
- 2) To review the concept of sustainable development and its relevance to the workplace; sources of practical guidance on sustainable workplaces were analysed;
- 3) To highlight the novelty of this EngD research.

2.2 VALUES AND BEHAVIOURS

2.2.1 Theories of values and behaviours

2.2.1.1 Personal values

Many theorists, including psychologists, sociologists and anthropologists view values as the criteria people use to select and justify actions and to evaluate people (including the self) and events, and claim values as the deepest and most powerful motivators of personal action. Table 2.1 presents a range of popular definitions.

Table 2.1 Examples of definitions / thoughts on values

Author(s)	Definitions of Values
Parsons (1951)	An element of a shared symbolic system which serves as a criterion or standard for selection among the alternatives of orientation which are intrinsically open in a situation.
Jacob et al. (1962)	The normative standards by which human beings are influenced in their choice among the alternative courses of action they perceive.
Rescher (1969)	Things of the mind that are to do with the vision people have of the good life for themselves and their fellows, which motivate people to achieve satisfactions and avoid dissatisfactions.
Rokeach (1973)	An enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence.
England (1975)	A personal value system which is a relatively permanent, perceptual framework that shapes and influences the general nature of an individual's behaviour.
Posner et al. (1987)	General standards by which we formulate attitudes and beliefs and according to which we behave.
Hofstede (1994)	Broad tendencies to prefer certain states of affairs over others.

Further, Schwartz (1992) and Schwartz and Bilsky (1987, 1990) summarised five formal features of values recurrently mentioned in the literature: values are beliefs; they are a motivational construct; they transcend specific actions and situations; they guide the selection or evaluation of actions, policies, people, and events, and they are ordered by relative importance. Schwartz therefore defines values as 'conceptions of the desirable that guide the way social actors select actions, evaluate people and events, and explain their actions and evaluations' (Schwartz 1999). Similarly, Argandoña (2003) defined values in a broad sense as 'central desires or beliefs regarding final states or desirable conducts that transcend specific situations, guide the choice and evaluation of our decisions and, therefore, of our conducts, becoming an integral part of our way of being and acting to the point of shaping our character.'

The definitions in Table 2.1 reflect the multitude of various values theories and thoughts. A central theme emerging from the literature is that personal values serve as relatively stable standards in one's life, which ultimately motivate and guide his/her behaviour. However, this is not to suggest that personal values are purely self-oriented. Indeed, values serve not only to reinforce our self-image, but also function in the interests of society. Rokeach (1973) claimed that values have either a 'personal focus' or a 'social focus', and are 'self centered' or 'society-centered'. England (1967) refers to values as being 'individualistic' or 'group oriented'. This is supported by Schwartz and Bilsky (1987; 1990), who argued that values represented three universal requirements of human existence: a) needs of individuals as biological organisms; b) requisites of coordinated social interaction; c) survival and welfare needs of groups. Hemingway (2005) shared the same view by claiming that the dual purpose to the function of values can be categorised as 'individualistic' or 'collectivist'.

It can be concluded that personal values operate at both individual and societal level. Therefore, the investigation of personal values will be important in understanding individuals and the organisational groups they are involved in.

2.2.1.2 Organisational values

Human beings have a strong and fundamental need to belong and be accepted by others (Baumeister and Leary, 1995). For the majority of people, a work group forms an important part of their social relationship. People bring their values into the work setting (Robertson, 1991), and these work-related values are considered to be 'the evaluative standards relating to work or the work environment by which individuals discern what is 'right' or assess the importance of preferences' (Dose, 1997). These are important in people's working life by fundamentally shaping attitudes towards job, colleagues and their workplace performance.

As such, it is not surprising that values have held a prominent place in both business ethics and organisational theories. Many believe that organisational values are characterised as having organisation-wide consensus, consistency and clarity between the intent of the organisational and employee behaviour, to the exclusion of ambiguity (e.g. Porter, et. al., 1974; Peter and Waterman, 1982; Meglino and Ravlin, 1998). Hence organisational values are often referred to as the shared values of all employees. They are relatively stable, enduring and serve as 'rules of life' (Gad, 2001) for making decisions about priorities in the organisation (Christensen, 2001). These widely shared, yet distinctive organisational values with resulting behaviours are held to be a critical feature of organisational culture and cultural differences (Hofstede, 1980; Schwartz, 1992; Schwartz and Bilsky, 1987, 1990; Whitley and England, 1977).

Many authors have proposed that superior organisational performance will result from strongly held shared values, and believe companies with positive corporate values can experience a significant reduction in counterproductive behaviour. Collins and Porras (1996) researched many successful companies and found they all adopted the premise of shared organisational values as an underlying philosophy. On the contrary, companies concentrating on the physical aspect of their being, and ignore their emotional, mental and spiritual needs may struggle to survive (Geus and Senge, 1997). Similarly, Pant and Lachman (1998) claim that management will have difficulty implementing a strategy incompatible with organisational core values. Further, Sillanpää (1998) argues that companies 'need to listen, to process and to respond positively to the values and beliefs of their stakeholders... Failure to do this will reduce competitiveness and increase the risk of corporate demise'.

Many believe therefore that it is the organisational values that drive the business, helping to clarify a company's identity and rally employees (Lencioni, 2002). Competitive demands call for profoundly conscious organisations which rely on

clear, consistent communication of a shared (but not imposed) core value set (Edgeman, 1998), upon which the edifice of value creation must rest (Sawhney, 2002). Hence it could be argued that manifesting organisational-shared values is a viable approach to achieve organisational success.

Unsurprisingly many organisations have expended significant time, effort and money on composing organisational values statements, which are then meant to become a benchmark for employee commitment and behaviour. These values are often established by the founders (explicitly, if not implicitly) and compounded further by the personalities and transforming activities of their inheritors (Anthony, 1994; Collins and Porras, 1997; Dearlove and Coomber, 1999). However, in a mature organisation there is a danger that values and practices espoused by the incumbent leaders may not be aligned with those of the followers/employees. Meanwhile, employees may subscribe to a value without knowing why they should stick to it and how to live and breathe it. Such values are difficult to enact in challenging situations (Maio and Olson, 1998; Maio et al., 2001).

2.2.1.3 The interrelationship between values and behaviours

As discussed earlier, personal values are key determinants of personal behaviours. One way to pursue values is to behave in ways that express them or promote their attainment (Bardi and Schwartz, 2003). Values are 'determinants of virtually all kinds of behaviour that could be called social behaviour or social action, attitudes and ideology, evaluations, moral judgments and justification of self and others, comparisons of self with others, presentations of self to others, and attempts to influence others' (Guth and Tagiuri, 1965, p.123).

In the domain of organisational research, some researchers explained employee behavioural intentions in terms of their individual characteristics. These

'personologists' believe that one can predict behaviour by measuring needs, traits, values, and motives, and argue that individual characteristics, such as personality traits, values and beliefs affect attitudes and actions in consistent and characteristic ways across situations and over time (Staw et al., 1986; Weiss and Adler, 1984).

Others have examined employees' behavioural intentions in terms of organisational characteristics; these researchers are commonly known as 'situationalists'. They are concerned with how people make sense of their environment, while also identifying those environmental elements that affect attitudes and behaviours (Davis-Blake and Pfeffer, 1989; Sheridan, 1992). Their research focuses on the measurement of the environment as a method of predicting behaviours.

Personologists and situationalists have tried to show how either the person or the situation alone affects attitudes and behaviours. However, many researchers agree that neither perspective sufficiently explains behaviour in organisations (Chatman, 1991; House et al., 1996; O'Reilly et al., 1991). They conclude that behaviour in organisations is a function of personal and situational attributes in interaction, i.e. that behaviour in organisations results from the complex interaction between features of the organisational context and characteristics of individuals. This 'interactionist' perspective highlights a need to understand individual and organisational characteristics and establish the link between the two.

2.2.1.4 The importance of linking personal and organisational values

The preceding argument makes clear that values are fundamental and enduring aspects of both people and organisations, and it illuminates areas of value congruence, where individual values coincide with values at the organisational

level. According to Schneider (1987), people are attracted to organisations precisely because they perceive them to have values similar to their own. Research has also shown that where there is overlap between organisational and employees' values, the employee tends to demonstrate a preference for, and commitment to that employer (Sen and Bhattacharya, 2001). On the other hand, organisational values, when interacting with facets of situations (e.g. incentive systems and norms), can affect the individuals' attitudinal and behavioural response. Understanding an organisation's values can enhance people's adjustment to their jobs (Wanous 1977), and their subsequent level of satisfaction and commitment (O'Reilly et al. 1991). A study conducted by Hyde and Williamson (2000) provided empirical evidence that there is a direct correlation between values congruence and employee satisfaction.

Unfortunately, managers and employees in many organisations may be unaware of the values they and their organisations possess and may tend to misjudge these values. The lack of respect for their co-workers' values could cause friction, while the confusion on organisational values could impair their performance. A 1995 study of 580 UK companies concluded that organisations could only empower people when everyone shared a very strong organisational vision, which requires organisations to be explicit about their values (Industrial Society, 1995). Therefore, research on understanding personal values and linking these to organisational values may provide a legitimate insight into improving personal and organisational development in the long term.

That said, identifying organisational values is not an easy task. As previously addressed, there is considerable confusion about how organisational values should be developed. Little attention has been paid to the importance of employees' personal values and as a result, such values are difficult to enact and sustain. Lencioni (2002) claimed that many values statements are 'bland, toothless, or just plain dishonest' which 'create cynical and dispirited employees,

alienate customers, and undermine managerial credibility.' Sillanpää (1998) argued that 'articulated top-down or cast in tablets of stone values are non-inclusive and would inevitably become ossified', and proposed that organisations should align personal and organisational values. Further, Dearlove and Coomber (1999) claimed that the key to define organisational values is to 'capture what is authentically believed, not what other companies select as their values or what the outside world thinks should be the values'.

The most effective way of developing the powerful connection between the values of a company and its employees is to encourage employees to clarify their own personal values and to link these to the organisational values. It is believed that individuals at all levels should have the understanding and skills to make value judgments, consciously informed by their individual and organisational values. Furthermore, the values and behaviours must be reflected in all of the organisation's processes and systems, with appropriate consequences for those who are not willing to 'walk the talk'.

2.2.2 Schwartz values theory

From samples of more than 60,000 individuals from over 60 nations, and based on universal requirements of human existence, Schwartz values theory identifies ten distinct motivational values. Bardi and Schwartz (2003) define these values as:

- **Power:** Social status and prestige, control or dominance over people and resources (social power, authority, wealth)
- **Achievement:** Personal success through demonstrating competence according to social standards (successful, capable, ambitious, influential)
- **Hedonism:** Pleasure and sensuous gratification for oneself (pleasure, enjoying life)

- Stimulation: Excitement, novelty, and challenge in life (daring, a varied life, an exciting life)
- Self-direction: Independent thought and action-choosing, creating, exploring (creativity, freedom, independent, curious, choosing own goals)
- Universalism: Understanding, appreciation, tolerance and protection of the welfare of all people and of nature (broadminded, wisdom, social justice, equality, a world at peace, a world of beauty, unity with nature, protecting the environment)
- Benevolence: Preservation and enhancement of the welfare of people with whom one is in frequent personal contact (helpful, honest, forgiving, loyal, responsible)
- Tradition: Respect, commitment and acceptance of the customs and ideas that traditional culture or religion provide the self (humble, accepting my portion in life, devout, respect for tradition, moderate)
- Conformity: Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms (politeness, obedient, self-discipline, honoring parents and elders)
- Security: Safety, harmony and stability of society, of relationships, and of self (family security, national security, social order, clean, reciprocation of favours)

Schwartz (1992) proposed a circumplex model (see Figure 2.1) to represent and explain the dynamics of conflict and congruence, whereby adjacent value types are most compatible, and a greater distance indicates greater conflict (those opposing being in greatest conflict). The ten categories are grouped into four higher order groups, which demonstrate two bi-polar dimensions, where

'openness to change' contrasts with 'conservation' values, and 'self-transcendence' contrasts with 'self-enhancement' values.

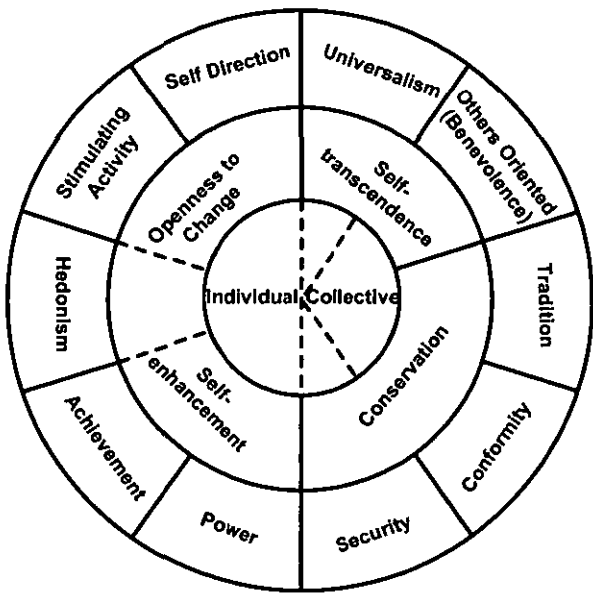


Figure 2.1 A universal values system/structure adapted from Schwartz (1992)

(After Mills et. al., 2006)

2.2.3 Methods used in values-related research

Despite the importance of values, few structured methods have been derived from theories to facilitate the alignment of individual and organisational values. Brainstorming is often used by many practitioners to identify organisational values. However, because of the difficulty in involving large numbers using this approach, only relatively small groups of individuals (often the senior management of the organisation) are involved in the process to identify the core values they personally bring to their work. As a result, such organisational values can only describe an organisation's high-level priorities from a limited perspective. Meanwhile, the values statement identification process is often

unstructured, so the range of values is often limited. In addition, if employees have not been included in the definition process they may not be as motivated and committed to the resulting statements.

Where a more inclusive approach is taken, the advice given in the literature is usually focused on a high-level process rather than robust supporting techniques. For example, Argandona (2003) proposes four stages to identify individual values, and then progressively foster those shared, adopted and finally held by the group. He takes a pluralist position, recommending that the organisation seeks unity in fundamental ends values but gives individuals freedom in their degree of adoption of supporting means values. No advice is given in how to undertake each step. Similarly, Jaffe and Scott (1998) outline a process used with multinational companies, but make reference to the use of 'value cards' as a starting point to initiate the discussion. The content and origin is not disclosed but is described later in their paper.

Nevertheless, the measurement of values has long been of interest to researchers. Among the most notable instruments are the Rokeach value survey (RVS), Hofstede's value survey module (HVS), the Competing values framework (CVF) and Schwartz values survey (SVS). Although widely used, each has its own advantages and some unavoidable difficulties, as discussed below.

2.2.3.1 Rokeach value survey (RVS)

Rokeach (1968, 1973, 1979) developed a theoretical perspective on the nature of values in a cognitive framework. He defined individual values as 'enduring beliefs through which a specific mode of conduct (behaviour) or end-state (outcome) is personally preferable to its opposite' (Rokeach, 1973, p. 5). According to Rokeach, there are two kinds of values (Rokeach, 1973, p. 7, 28):

- Instrumental values, which are concerned with "modes of conduct", referring to modes of conduct and reflecting behavioural characteristics

that are seen as socially desirable, e.g. ambitious (hard-working, aspiring) and honest (sincere, truthful)

- Terminal values, which are concerned with "end states of existence", referring to end states of existence or ultimate modes of living which have been idealised, e.g. 'a comfortable life (a prosperous life)' and 'a world at peace (free of war and conflict)'

Rokeach (1979) proposed a relationship between instrumental and terminal values wherein values concerning modes of behaviour facilitate the attainment of the valued outcomes.

The Rokeach Value Survey (RVS) is an instrument designed by Rokeach to operationalise the value concept, which has been used as an instrument for measuring personal and social values. It consists of 18 terminal and 18 instrumental values listed in alphabetical order. Subjects are asked to rank the 18 terminal values, followed by the 18 instrumental values, in order of importance to them, as guiding principles in their life.

Since its development in the late 1960's, it has been widely used and validated. However, there has been controversy over the underlying structure and measurement using the RVS, some believe it is too open to various interpretations, not specific to any actual behaviours, and results are subject to reanalysis (see Feather 1988, Gibbins and Walker 1993, Johnston 1995). Meanwhile, Hofstede and Bond (1984) argue that RVS is biased toward western values.

2.2.3.2 Hofstede's value survey module (HVSM)

Developed through a worldwide survey of employees in IBM, the Hofstede (1980) model identifies four dimensions, or indices, of culture. The indices measure four characteristics: individualism, uncertainty avoidance, power distance and

masculinity. Hofstede's work has since provided an important framework for understanding cultural differences.

Hofstede's value survey module (Hofstede, 1980) is a questionnaire designed to evaluate work values: the underlying values are derived from a series of questions about preferred states or behaviours. Hofstede devised the Values Survey Module for use in researching cultural differences, and this has been used by many other researchers in organisational management, such as to determine the suitability of certain management techniques for various countries or to make comparisons between countries to understand cultural differences in various areas of management, etc.

Although his pioneering work has significantly increased our understanding of national cultures and the differences between them, his work has been increasingly criticised as non-exhaustive, not reflecting the full spectrum of national cultures, the respondents were not representative of the general population of their respective countries, and value items were not necessarily conceptually equivalent across culture space (e.g., Brett and Okumura, 1998; Schwartz, 1994; Steenkamp, 2001). Others consider it to be out of date and too brief to capture all the aspects of culture (McSweeney, 2002, Shenkar, 2001; Smith et al., 2002).

2.2.3.3 Competing values framework (CVF)

The Competing Values Framework emerged from a series of empirical studies on the notion of organisational effectiveness (Quinn and Rohrbaugh, 1983). It has two dimensions of effectiveness in relation to organisational focus, and the contrast between stability and control and flexibility and change.

CVF theory claims that there are four information-processing situations that are based on cues that are either novel, recognisable, long term or short term. Depending on a person's need for achievement versus need for affiliation will

determine if they take immediate action, or none, on cues they are receiving, i.e. a person will choose values dependent on the situation.

Whilst the CVF tool was initially designed for undertaking cultural audits, it can be used as a guide and indicator of cultural change, employee motivation and development of leadership skills, as well as having some potential for organisational improvement (Maloney and Federle, 1993). However, this ipsative-type instrument, i.e. the sum of the scores measured over the attributes for each individual equals a constant (Clemans, 1966), has been criticised when scores generated have been used as independent variables in analyses (Cornwell and Dunlap, 1994).

2.2.3.4 Schwartz values survey (SVS)

The Schwartz Values Survey (SVS) (Schwartz, 1992) is another instrument which defines a comprehensive typology of cross-cultural human values. It measures individuals' opinions of the relative importance of 56 generic values. It has a normative format (Chatman, 1991), designed to avoid inadvertent introduction of bias. Subjects are asked to indicate, using a nine-point Likert scale from -1 to 7, the importance of each item (with '-1' being 'opposed to my values' and '7' being of supreme importance) in their lives. Respondents are asked to rate one supremely important value 7 and one least important value -1, 0 or 1 on each sheet before rating other items. This anchors the response scale for them. Thus, values are assessed independently of one another, which makes it possible to capture differences between value items.

The SVS instrument is different from the others because it asks respondents to assess how important these values are as 'guiding principles of one's life' rather than as desirable end states or ideal behaviours. This can help eliminate the chance of situational variables having a strong impact on the respondents (Dahl, 2004). The values within the SVS are theoretically derived, have a more

comprehensive set of value dimensions, and have been tested with more recent data. Meanwhile, the rating rather than ranking scale measure does not force individuals to choose between values they may hold equally important.

In summary, values play an important role at both individual and organisational levels. The most effective way of developing the powerful connection between the values of a company and its employees is to encourage staff to clarify their personal values and to link them to the organisational values. However, few structured methods have been derived from theories to establish such linkage, although some instruments are available to facilitate the measurement of values. Among these instruments, SVS seems to have more merits compared to others.

2.3 THE SUSTAINABLE WORKPLACE

2.3.1 Sustainable development

The term sustainable development is often used synonymously with sustainability. Despite the widespread interest in SD or sustainability, their precise meanings remain elusive. According to Chambers Concise Dictionary (2004), the word 'sustain' has several meanings: to hold up; to bear; to support; to provide for; to maintain; to sanction; to keep going; to keep up; to prolong; to support life. Many argue that, due to the very broad meaning of the word 'sustain', SD could be used to mean almost anything (Lele, 1991). Bell and Morse (1999, p.5) argue that 'the precise meaning of sustainable, and what it embraces, varies depending upon who is using it and in what context'. While the vague definition of SD may seem to be a problem to some, others believe this is not all bad. Daly (1991, p.248) argues this has allowed 'a considerable consensus to evolve in support of the idea that it is both morally and economically wrong to treat the world as a business in liquidation'. Bell and Morse (1999, p.10) claim this created the flexibility which allows the concept to 'attain the heights that it

has', and believe that having a single definition that one attempts to apply in all instances could be both impractical and dangerous.

The sheer proliferation of definitions of SD is evidence of contestability (Carter, 2001, p.197). Fowke and Prasad (1996) identify at least 80 different, often competing and sometimes contradictory definitions; Parkin et al. (2003) report over 200 definitions. In fact, definitions have emerged continuously since 1987. In the UK, the Government defines SD as 'ensuring a better quality of life for everyone now and for the future generations to come' (Department for Environment, Food and Rural Affairs (DEFRA), 1999). The sustainable development charity Forum for the Future defines SD as 'a dynamic process which enables all people to realise their potential and to improve their quality of life in ways which simultaneously protect and enhance the Earth's life support systems' (Forum for the Future, n. d.). Similarly, British Standard BS8900: 2006 defines sustainable development as 'an enduring, balanced approach to economic activity, environmental responsibility and social progress' (British Standard Institute (BSI), 2006). These definitions link issues or impacts across spatial and temporal scales, as well as natural and human social systems.

Despite the proliferation and vagueness of the meaning of SD, one popular shorthand interpretation is the concept of the 'triple bottom line' of economic, environmental and social accountability (Elkington, 1997). This idea shifts the debate from traditional environmentalism to the notion of sustainability, which requires a much more complex process of trading off environmental, social and economic priorities.

Hence, SD is a multidimensional concept which requires multidisciplinary thinking. Reed (2007) argues that the way we think about and practice sustainability should be moved into whole systems and living systems thinking. Others approach SD by using some scientific theories, e.g. chaos theory (Stewart, 1989, Hock, 1999; Fitzgerald and van Eijnatten, 2002) or integral theory (Wilber, 2000;

Riedy, 2007). All these theories emphasise that a holistic and dynamic approach should be used when dealing with SD related issues, which should be applicable in the process of creating sustainable workplaces.

2.3.2 Sustainable workplaces

Along with the movement towards sustainability, many claim that work or the work system should be made sustainable. Hvid and Lund (2002) define sustainable work as 'a conscious, goal oriented and corporate activity, which involves both the workers and external stakeholders in the fulfilment of social and environmental needs for those who are working, the society they are a part of, and the natural environment.' Van Eijnatten (2000) argues that to make a work system sustainable, the quality of a) work, b) the organisation and c) connections with the environment must all be kept constantly at a high level. Further, Backström et al. (2002) claim such a system should consciously and simultaneously strive towards development at individual, group/company, and society levels.

To accommodate sustainable work or a work system, the concept of sustainable workplaces emerged. While many regard sustainable workplaces as the same as environmentally friendly or 'green' workplaces, some interpret the concept with more emphasis on human issues. Handy (2002, p.54) argues that 'in the knowledge economy, many people have seen their ability to balance work with the rest of their lives deteriorate steadily, as they fall victim to the stresses of the long hours culture'; he therefore claims that 'sustainability must extend to the human as well as the environmental level.' Kvam (2005, p. 2) describes a sustainable workplace as 'a place you go to with joy, where people remain in good health and work into old age, and where colleagues participate in developing processes.' Similarly, a Danish trade union representative claims a sustainable workspace should be 'somewhere you will go to feeling happy and come back

from feeling satisfied. A place you can work all your life without being burnout, and where you have access to good tools. The tempo mustn't be too high, and you should have a say in matters and be listened to.' (Wallin, 2005, p.12)

Others take a much broader view. The U.S. General Services Administration (GSA, n. d., p.12) points out that a sustainable approach should consider many workplace approaches, i.e. how we work; where we work; how we get to work; how we build, lease, furnish, and ultimately dispose of our building; and how we operate and maintain our buildings.

Similarly, Gomes et al. (2001) argue that a sustainable workplace 'takes into account the ecological and social consequences of operations, as well as economic ones'. They claim that this broad subject embraces:

- 1) features of the community where the business takes place;
- 2) business organisation and its impact in the community;
- 3) characteristics of the building where people work;
- 4) equipment, furnishings and finishing of the physical place;
- 5) the interaction between people within the workplace; and
- 6) interactions with the environment.

These authors make it clear that creating sustainable workplaces must take all environmental, social, and economic aspects of the workplace into consideration.

Based on the discussions above, creating sustainable workplaces perhaps calls for a holistic business philosophy, which, by embedding sustainable development principles into all aspects of workplace development, aims to deliver environmental, social and economic benefits over the long term, and facilitates the creation of a positive and sustainable society. This is the definition adopted by this research.

2.3.3 Review of practical guidance

In recent years, a series of practical guidance documents has been published by various bodies, aiming to create sustainable workplaces. These available guidance documents are systematically categorised, compared and synthesised within a clear framework, to facilitate easy understanding and practice. Paper 4 in Appendix 4 presents the results of this review.

2.4 NOVELTY OF THE ENGD RESEARCH

Despite the importance of values congruence between individuals and their host organisation, few structured methods have been derived from theories which facilitate the alignment of individual and organisational values. The difficulties surrounding the development of an organisation's values are exacerbated by the dearth of literature offering practical guidance.

This research presents a unique and practical way to establish collective organisational values. A bottom-up approach was adopted by surveying and consulting the values of all the staff. Schwartz's values survey (SVS) instrument and values theory are, for the first time, applied extensively in an organisational context, as opposed to the comparative, intercultural research conducted at the national/cultural level. The work involved the application of this theory to UK construction. Practical guidance was offered on how to identify employees' personal values and hence formulate collective organisational values statements.

Furthermore, the review of the available sustainable workplace development guidance shows that as an emerging and fast developing area, the research into sustainable workplaces is still fragmented and unbalanced. The majority of guidance places emphasis on environmental impacts arising from workplace activities, and aims to promote environmental awareness among the workforce. Whilst this may be appropriate in itself, it is of concern that other key aspects of

sustainable development (i.e. social and economic aspects) have been overlooked to some extent. To bridge this gap, this research adopts the three dimensional framework of sustainable development, and established a framework to facilitate the creation and continuous development of the sustainable workplace. It also linked the organisational values and related key business issues to workplace sustainable development criteria, hence the development towards sustainable workplaces could consequently enhance organisational values, therefore improve organisational performance as well as employees' quality of life at work.

In summary, the research has advanced the body of knowledge on organisational values and the sustainable workplace development and demonstrated innovation in the application of the knowledge to the construction services organisation. It is believed that the work carried out in this project provides significant progress in the application of VBM, and the methods applied are unique in nature, hence the novelty of the EngD research.

2.5 SUMMARY

This chapter has provided an overview of the relevant research that has been conducted. The research reviewed the theories on values and behaviours, and highlighted the importance of aligning personal and organisational values; methods that facilitate such values alignment were presented, and the most commonly used values-measurement instruments are evaluated. Furthermore, to address the needs of the phase 2 research, the theories of sustainable development and its implication within workplace was examined, and sources of practical guidance on creating sustainable workplace were analysed. These serve to provide a knowledge foundation from which to learn and build, establishing the novelty of this research.

3 RESEARCH METHODOLOGY

3.1 INTRODUCTION

The success and validity of any research critically depends on the appropriate selection of research methods (Fellows and Liu, 2003). This chapter reviews the general concept of research, and classifies this research according to its nature. It briefly outlines some of the methodological approaches that are available, details the methods employed in this research project, and explains the rationale behind the research design.

3.2 DEFINITION OF RESEARCH

Drew (1980) claims that 'research is conducted to solve problems and to expand knowledge' and stresses that 'research is a systematic way of asking questions, a systematic method of enquiry. Similarly, Howard and Sharp (1983, pp.6) define research as 'seeking through methodical processes to add to one's own body of knowledge and, hopefully, to that of others, by the discovery of non-trivial facts and insights'. According to Grinnell (1993), the word research describes a careful, systematic, patient study and investigation in some field of knowledge, undertaken to establish facts or principles. He defines the research as a structured inquiry that utilises acceptable scientific methodology to solve problems and creates new knowledge that is generally applicable. Further, Kumar (1999) pointed out that research is a way of thinking: examining critically the various aspects of a specific profession; understanding and formulating guiding principles that govern a particular procedure; and developing and testing new theories for the enhancement of the profession. From these definitions it is clear that research is a methodical process for collecting, analysing and interpreting information, to solve problems and create new knowledge.

3.3 TYPES OF RESEARCH

There are many types of research. A useful classification was given by Kumar (1999), who claimed that research can be classified from the three perspectives of application, objectives and type of information sought (see Figure 3.1).

From the application point of view, there are two types of research, namely pure research and applied research. Pure research is academic in nature and is undertaken in order to gain knowledge about phenomena that may or may not have application in the near future, and to develop new techniques and procedures that form the body of research methodology. Applied research is where the findings are sought either for use in understanding a phenomenon/ issue or to bring change in a program/ situation.

From the objectives point of view there are four types of research, namely descriptive, correlational, explanatory and exploratory. Descriptive research aims to describe a situation, phenomenon, problem or issue; correlational research aims to establish or explore a relationship between two or more variables; explanatory research aims to explain why certain things happen the way they do; and exploratory research aims to examine the feasibility of conducting a study.

Finally, from the information point of view, there are two types of research, namely qualitative research and quantitative research. The main objective of qualitative research is to describe the variation in a phenomenon, situation or attitude. It is subjective in nature. It emphasises meanings, experience (often verbally described), description and so on (Naoum, 2002). An investigation of the subject is undertaken without prior formulations. The aim is to gain understanding so that theories will emerge. In general, it reflects a constructivist, naturalistic or interpretative paradigm.

Quantitative research is objective in nature (Naoum, 2002). It seeks to gather factual data in order to study relationships between facts, and how these relationships accord with theories and findings of previous research. It reflects a positivist, experimental, or empiricist paradigm. Typically, it is taken to be exemplified by the social survey and by experimental investigation (Bryman, 1988).

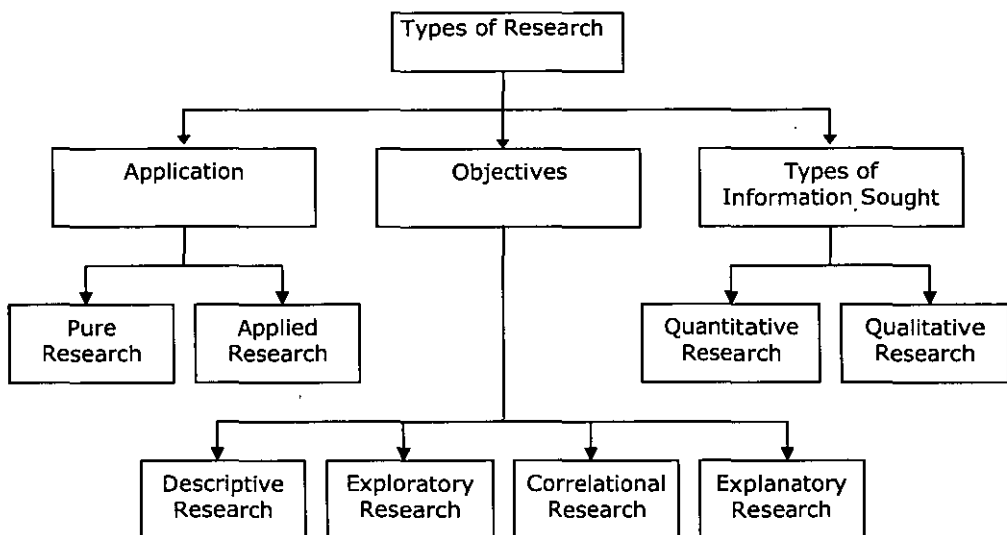


Figure 3.1 Types of research

(Source: Kumar, 1999)

From the application point of view, this EngD research project is applied research with the following features:

- 1) The research topic was defined jointly by the industrial sponsor and the academic research team. It is framed by both parties' understanding towards the subject, built upon previous academic research, and addresses the company's business interests.
- 2) The research objectives and processes were regularly monitored and assessed during the research period, to make sure that the most

appropriate theories, knowledge, methods, and techniques were applied to satisfy the changing business requirements.

- 3) Both industry and academia's interests are combined in the research, and both parties are responsible for the success of the project. It draws the experiences and resources from both parties, and the results of the research have both academic and practical values.

However, it must be noted that there are difficulties in carrying out such a research project. Different perspectives on a subject may cause friction or conflicts which can affect the progress of research. Our experience in this project shows that frequent communication is the key to avoiding these problems, therefore ensure the achievement of mutual benefits for all.

From the objectives point of view, this research is generally exploratory in nature. It explores a way to develop collective organisational values and a holistic and balanced way to create a sustainable workplace.

From the information point of view, both qualitative and quantitative information needs to be sought. The details are discussed in section 3.4 and 3.5.

3.4 RESEARCH METHODOLOGY

Methodology is perceived as the overall method applied to satisfy the aims of an investigation (Holt, 1998). Research methodology refers to the principles and procedures of logical thought processes which are applied to scientific investigation (Fellows and Liu, 2003).

The philosophical choices underlying any research can have big impact on the quality of research outcomes. Over the years, there is a long-standing debate amongst social science philosophers about the philosophical position from which research methods should be derived. The two traditional positions are commonly known as (Bryman, 2006):

- 1) Positivism (or post-positivism)
- 2) Interpretivism, founded on such traditions as phenomenology, symbolic interactionism, hermeneutics and Verstehen

It must be noted that, although argued by many researchers as being potentially misleading, there is still a tendency among some researchers to treat 'positivist research' and 'quantitative research' as synonymous, and similarly, 'interpretivist research' and 'qualitative research' as the same.

There are many ontological, epistemological, and methodological differences between the positivist and the interpretivist view points. Here ontology reflects beliefs about the nature of reality, and is defined by Blaikie (2000, pp. 8) as 'claims and assumptions that are made about the nature of social reality, claims about what exists, what it looks like, what units make it up and how these units interact with each other. In short, ontological assumptions are concerned with what we believe constitutes social reality'. Epistemology refers to beliefs about the preferred relationship between the researcher and the researched subject, and is defined as 'the possible ways of gaining knowledge of social reality, whatever it is understood to be. In short, claims about how what is assumed to exist can be known' (Blaikie, 2000, pp. 8). Research methods refer to the ways/techniques we use for collecting information about the world, and logic of inquiry is called reasoning.

3.4.1 Positivism

The advocates of positivism, known as positivist, believe that the social world exists externally; therefore, its properties should be measured through objective methods, rather than being inferred subjectively through sensation, reflection or intuition (Easterby-Smith et al., 1993). They claim that time and context-free generalisations (Nagel, 1986) are desirable and possible, and real causes of social scientific outcomes can be determined reliably and validly. Quantitative research

methods are preferred by positivist researchers, and deductive reasoning, i.e. testing of theories and hypotheses, is at the heart of the positivist mind frame.

Quantitative research methods focus on objective measures rather than subjective experience. They are empirical in nature (Punch, 1998), and involves an inquiry into an identified problem, based on testing a theory, measured by numbers, and analysed using statistical techniques. Some widely used quantitative research methods are listed below.

3.4.1.1 Experiments

Experiments are characterised by a random assignment of subjects to experimental conditions and the use of experimental controls. This type of research is best suited to 'bounded' problems or issues in which variables involved are known, or at least hypothesised with some confidence (Fellows and Liu 2003).

3.4.1.2 Quasi - Experiments

Quasi-experimental studies share almost all the features of experimental designs except that they involve non-randomised assignment of subjects to experimental conditions.

3.4.1.3 Surveys

A survey is a procedure in which information is collected systematically about a set of cases (e.g. people, organisations, objects). The cases are selected from a defined population with the aim to construct a data set from which estimates can be made and conclusions reached about this population (Thomas, 1996). Surveys include cross-sectional and longitudinal studies using questionnaires or interviews for data collection with the intent of estimating the characteristics of a large population of interest based on a smaller sample from that population.

In general, quantitative research methods can help gather factual data, and therefore facilitate the comparison and statistical aggregation of these data. The data collected by using quantitative methods are usually analysed statistically and displayed in the form of tables and charts (e.g. line graphs, bar charts, pie charts, radar diagrams, etc). By analyzing the data, the relationships between the facts can be revealed and how these relationships accord with theories and findings of previous research can be studied, hence a broad, generalised set of findings can be achieved. Some characteristics of quantitative research methods are summarised in Table 3.1.

3.4.2 Interpretivism

On the other hand, the proponents of interpretive approach hold the view that the world and reality are not objective and external, but are socially constructed and given meaning by people. These researchers contend that:

- 1) multiple-constructed realities abound;
- 2) time and context-free generalisations are neither desirable nor possible;
- 3) research is value-bound;
- 4) it is impossible to differentiate fully causes and effects;
- 5) logic flows from specific to general; and
- 6) knower and known cannot be separated because the subjective knower is the only source of reality (Guba, 1990).

In interpretivist research, explanations are often generated inductively from the data. Qualitative research methods are favoured by interpretivist researchers, which are defined by Van Maanen (1983) as 'an array of interpretive techniques which seek to describe, decode, translate and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring

phenomena in the social world'. They emphasise meanings, experience (often verbally described), description and so on.

The methods to collect qualitative data include, but is not limited to, the following.

3.4.2.1 Individual interviews

An interview is a verbal interchange, often face-to-face (though the telephone may be used), in which an interviewer tries to elicit information, beliefs or opinions from another person (Burns 2000). These can be classified as structured, semi-structured or unstructured interviews based on the strictness of the question schedules and the types of the questions being used in the interviews.

3.4.2.2 Focus group

The focus group is defined as a group of individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research (Powell and Single, 1996). The benefits include gaining insight into people's shared understandings of everyday life and the ways in which individuals are influenced by others in a group situation. The method is particularly useful when there are power differences between the participants and decision-makers or professionals, when the everyday use of language and culture of particular groups is of interest, and when one wants to explore the degree of consensus on a given topic (Morgan & Kreuger 1993).

3.4.2.3 Direct observation

Direct observation is the careful watching and study of those participating in a research study. The accurate observation of participants is important to the success of this method and determines the validity of the findings. Meanwhile, attention must be paid to ethical issues to avoid illegal observations.

3.4.2.4 Action research

This involves active participation by the researcher in the process under study, in order to identify, promote and evaluate problems and potential solutions (Fellows and Liu, 2003).

3.4.2.5 Case studies

According to Yin (2003), case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident. It is used to gain in-depth understanding of the subject, focusing on process rather than outcome, on discovery rather than confirmation (Burns, 2000).

3.4.2.6 Qualitative content analysis of documents

Qualitative content analysis focuses on the characteristics of language as communication with attention to the content or contextual meaning of the text (Lindkvist, 1981; McTavish and Pirro, 1990; Tesch, 1990). Text data might be in verbal, print, or electronic form and might have been obtained from narrative responses, open-ended survey questions, interviews, focus groups, observations, or print media such as articles, books, or manuals (Kondracki and Wellman, 2002). Typically, the major purpose of content analysis is to identify patterns in text.

3.4.2.7 Grounded theory

Grounded Theory is a methodology that contains both inductive and deductive thinking. It is a general method and can be used with either qualitative or quantitative data. However, at present the most popular way to use it is in qualitative research (Glaser, 2001, 2003).

Grounded Theory is the systematic generation of theory from systematic research. It is explicitly emergent. The aim is to discover the theory implicit in the data. The results of Grounded Theory are not a reporting of facts but a set of probability statements about the relationship between concepts, or an integrated set of conceptual hypotheses developed from empirical data (Glaser 1998). Validity in its traditional sense is consequently not an issue in Grounded Theory, which instead should be judged by fit, relevance, workability, and modifiability (Glaser & Strauss 1967, Glaser 1978, Glaser 1998).

Grounded theory provides detailed and systematic procedures for data collection, analysis and theorising, but it is also concerned with the quality of emergent theory. Strauss and Corbin (1990) state that there are four primary requirements for judging a good grounded theory: 1) It should fit the phenomenon, provided it has been carefully derived from diverse data and is adherent to the common reality of the area; 2) It should provide understanding, and be understandable; 3) Because the data is comprehensive, it should provide generality, in that the theory includes extensive variation and is abstract enough to be applicable to a wide variety of contexts; and 4) It should provide control, in the sense of stating the conditions under which the theory applies and describing a reasonable basis for action.

In general, the above qualitative research methods usually involve direct interaction between individuals on a one-to-one basis or in a group setting. The focus of attention is on the subjective experience and perception of research subjects. By applying these methods, the richness of data and deeper insight into the phenomena under study can be achieved (Hancock, 1998). However, it must be pointed out that although this increases the understanding of the cases and the situations studied, sometimes it reduces the possibility of generalising findings. Some characteristics of qualitative research methods are summarised in Table 3.1.

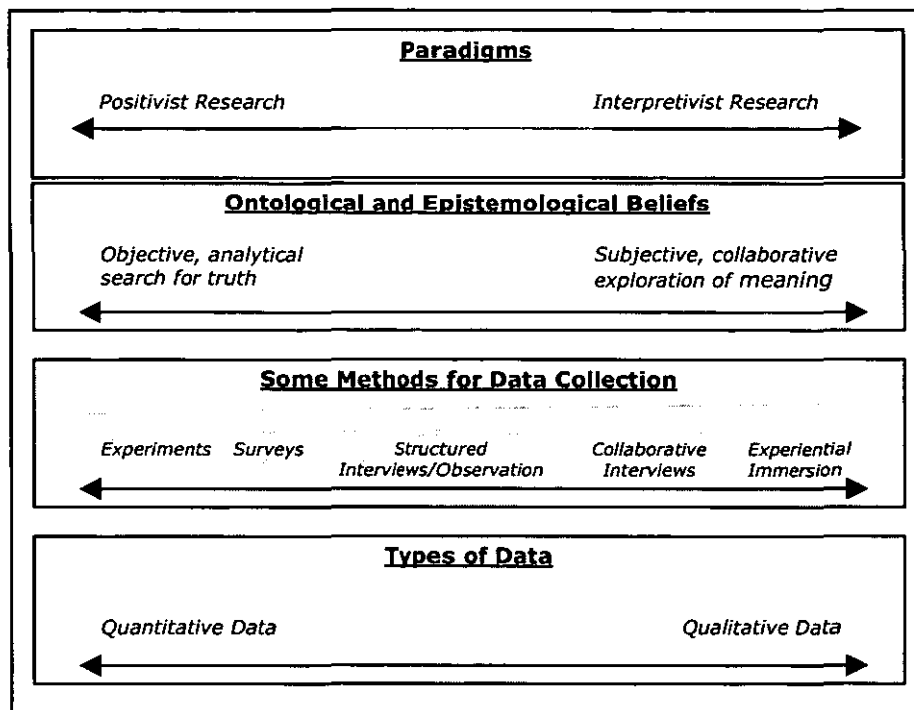
The two traditional research philosophies/paradigms have resulted in two research cultures, "one professing the superiority of 'deep, rich observational data' and the other the virtues of 'hard, generalisable' . . . data" (Sieber, 1973). Figure 3.2 demonstrates some characteristics of positivist and interpretive Research.

Table 3.1 Characteristics of quantitative vs. qualitative research methods

	Qualitative Methods	Quantitative Methods
Nature	Subjective	Objective
Aim	To describe the variation in a phenomenon, situation or attitude; Emphasises meanings, experience description and so on	To gather factual data to study relationships between facts and how these relationships accord with theories and findings of previous research
Advantages	Focuses on the ways that people make sense of the world especially through sharing their experiences with others via language	Replicable in different units, hence offers advantages for cross-sectional and large-scale studies Possibility to obtain hard, secure objective knowledge
Disadvantages	The data produced by the softer, interpretive methods may sometimes be unreliable, impressionistic and not objective	Relies on more remote, inferential empirical materials, hence may be unable to capture the subject's perspective, or ignore the political, cultural and social construction of the variables studied

Figure 3.2 Characteristics of Positivist and Interpretive Research

(Adopted from Samdahl, 1999)



3.4.3 Mixed methods research

Although the distinction between these two paradigms seem to be very clear at the philosophical level, Rossman and Wilson (1994, pp. 315) argue that 'there is growing acknowledgment that complex social phenomena can usefully be understood by looking at them both quantitatively and qualitatively'. In practice, research that involves the integration of quantitative and qualitative research has become increasingly common in recent years (Bryman, 2006), with such names as multi-methods (Brannen, 1992), multi-strategy (Bryman, 2004), mixed methods (Creswell, 2003; Tashakkori and Teddlie, 2003), or mixed methodology (Tashakkori and Teddlie, 1998). The term mixed methods research is used throughout this thesis.

Johnson and Onwuegbuzie (2004) defined mixed methods research as 'the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study'. Data are collected in a simultaneous or sequential manner using methods that are drawn from both qualitative and quantitative tradition, in a fashion that best addresses the research questions (Creswell, 2003). Philosophically, mixed methods research makes use of the pragmatic method and system of philosophy (Bryman 2006, Johnson and Onwuegbuzie, 2004, Maxcy, 2003). It links the choice of approach directly to the purpose and the nature of the research question posed (Creswell, 2003), which 'seems to have emerged as both a method of inquiry and a device for the settling of battles between research purists and more practical minded scientists' (Maxcy, 2003, p. 79), and also helps to make sure that research approaches 'can be mixed fruitfully (Hoshmand, 2003). The reasoning of mixed methods research includes the use of induction, deduction, and abduction (uncovering and relying on the best of a set of explanations for understanding one's results) (Johnson and Onwuegbuzie, 2004).

Mixed methods research can be considered as the natural complement to traditional positivist and interpretive research. Onwuegbuzie and Leech (2004) claim that mixed methods research as the third research paradigm, 'can help bridge the schism between quantitative and qualitative research'. They argue that the key feature of mixed methods research is its methodological pluralism or eclecticism, which frequently results in superior research as oppose to mono-method research. Similarly, Maxcy (2003) and Watson (1990) claim that by taking a pragmatic and balanced or pluralist position, mixed methods research will help improve communication among researchers from different paradigms as they attempt to advance knowledge.

According to Tashakkori and Teddlie (2003), a mixed methods research is superior to a mono-methods approach in the following areas:

- 1) it has the ability to answer research questions that other approaches cannot, and can answer simultaneously confirmatory and exploratory questions;
- 2) it provides stronger inferences through depth and breadth in answer to complex social phenomena; and
- 3) it provides the opportunity through divergent findings for an expression of differing viewpoints.

However, mixed methods research is not a panacea for any research and should not be seen as a universally superior or appropriate strategy (Bryman, 2006). It has certain weaknesses, which include (Johnson and Onwuegbuzie, 2004):

- 1) It can be difficult for a single researcher to carry out both qualitative and quantitative research, especially if two or more approaches are expected to be used concurrently; it may require a research team.
- 2) Researcher has to learn about multiple methods and approaches and understand how to mix them appropriately.
- 3) More expensive and time consuming.
- 4) Some of the details of mixed research remain to be worked out fully by research methodologists (e.g., problems of paradigm mixing, how to qualitatively analyse quantitative data, how to interpret conflicting results).

As such, mixed methods research is helpful for answering certain kinds of research questions that can only be answered by combining quantitative and qualitative research (Bryman, 2006). When combining quantitative and qualitative research, the following five justifications could be used (Greene et al., 1989):

- 1) Triangulation: convergence, corroboration, correspondence of results from different methods.
- 2) Complementarity: 'seeks elaboration, enhancement, illustration, clarification of the results from one method with the results from another'.
- 3) Development: 'seeks to use the results from one method to help develop or inform the other method, where development is broadly construed to include sampling and implementation, as well as measurement decisions'.
- 4) Initiation: 'seeks the discovery of paradox and contradiction, new perspectives of frameworks, the recasting of questions or results from one method with questions or results from the other method'.
- 5) Expansion: 'seeks to extend the breadth and range of enquiry by using different methods for different inquiry components' (Greene et al., 1989, pp.259).

3.5 ADOPTED RESEARCH METHODOLOGY

3.5.1 Methodological design for Phase 1

Research into personal values and organisational values, and establish the link between them in a business setting, is a complicated task. Mixed methods research was applied in the phase 1 of this research, with the aim to seek convergence, corroboration, correspondence of results from different methods. It is pragmatic in nature, and triangulates quantitative and qualitative research methods. Some methods and techniques, including questionnaire survey, workshops and pilot study were used to collect both quantitative and qualitative data. Inductive reasoning was applied to make generalisations based on individual instances.

Historically, few structured methods have been derived from theory to facilitate the alignment of individual and organisational values. Brainstorming is common, but the difficulty in involving large numbers limits this approach to small groups (often the senior management of the organisation). As a result, these values can only describe an organisation's high-level priorities from a limited perspective. Meanwhile, the values statement identification process is often unstructured, so the range of values is often limited. What is more, if employees have not been included in the definition process they may not be as motivated and committed to the resulting statements.

Where a more inclusive approach is taken, the advice in the literature is usually on a high-level process rather than robust supporting techniques. For example, Argandoña (2003) proposed six stages to identify individual values, and then progressively foster those shared, adopted and finally held by the group. He takes a pluralist position, recommending that the organisation seek unity in fundamental ends values but gives individuals freedom in their degree of adoption of supporting means values. No advice is given in how to undertake each step beyond mention of lists, statements and discussion. Similarly, Jaffe and Scott (1998) outline a process used with multi-national companies, but make reference to the use of 'value cards' as a starting point to initiate the discussion.

In contrast this research adopted a bottom-up approach which characterised an organisation's values by surveying and consulting with most of its members and relating the results to a model of universal values. However, some argue that it is not sufficient to infer values from attitude surveys alone (Smucker, 1982; Schooler, 1983). Therefore, a mixed methods approach was adopted whereby the quantitative studies were supplemented with workshop-based, in-depth qualitative inquiries with the aim of creating a broad-based picture of the organisation's values profile which would help bond the employees together to work in the same direction.

As many other research areas, in the domain of organisational values research, there is also a long history of debate of the relative merits of qualitative versus quantitative research methods. On one hand, a quantitative approach is preferred by some researchers, as it offers advantages for cross-sectional organisational research and large-scale studies (Cooke and Rousseau, 1988). It is replicable in different units and enables the researchers to compare data across studies. It is based on an objective view of the world and follows the positivist model of controlling variables and testing pre-specified hypotheses, hence 'is possible to obtain hard, secure objective knowledge' (Carson et al., 2001). However, it is argued that a quantitative approach may 'fail to get to grips fully with the issues of moral meaning...' (Crane, 2000), or unable to capture the subject's perspective because it has to rely on more remote, inferential empirical materials. Therefore, it has long been recognised that purely quantitative research may ignore the political, cultural and social construction of the variables studied (Mills 1959, Kirk and Miller 1986, Silverman 1998).

A qualitative approach, on the other hand, helps people understand the organisational values and cultures as artefacts and stories (Smircich, 1983). It 'focuses on the ways that people make sense of the world especially through sharing their experiences with others via the medium of language' (Easterby-Smith et al., 2002, pp. 28). Qualitative researchers believe that rich descriptions of the social world are valuable, whereas quantitative researchers, with their etic, nomothetic commitments, are less concerned with such detail (Denzin and Lincoln 1998). However, many quantitative researchers argue that the empirical data produced by the softer, interpretive qualitative methods are unreliable, impressionistic and not objective.

The preceding argument makes it clear that neither approach is flawless in organisational values research. As such, mixed-methods approach was applied in this research to supplement the quantitative studies with some in-depth

qualitative inquiry, therefore creating a more realistic picture of the organisation's values profile.

In order to collect qualitative and quantitative information for this research, the following techniques were adopted.

3.5.1.1 Questionnaire survey

An organisation-wide questionnaire survey was conducted amongst the 456 employees to capture their personal value priorities in an efficient and economic way, and to support a cross-sectional study. Quantitative data were collected and analysed statistically.

The questionnaire was developed based on the SVS instrument. The Schwartz Values Survey (SVS) (Schwartz, 1992) defines a comprehensive typology of cross-cultural human values based on the relative importance of 56 generic values. It has a normative format (Chatman, 1991), designed to avoid inadvertent bias. Subjects rate on a nine-point Likert scale from -1 to 7, the importance of each item in their lives, with one supremely important value 7 and one least important value -1, 0 or 1 to anchor the responses.

The SVS instrument is considered to be the most appropriate method for this research comparing to other methods commonly used in values-related research. First of all, the values within the SVS are theoretically derived, have a more comprehensive set of value dimensions. SVS not only provides us with a list of values, but more importantly, it is based on a well established universal theory of values. The underpinning Schwartz values theory helps to reveal the interrelationship between each values, which other methods do not seem to offer. According to Eliason and Schubot (1995), the SVS provides an extensive coverage and analysis of values and is the most widely used instrument for measuring personal values. Secondly, unlike RVS which was developed in 1960s and has been criticised as being biased towards western values, or HVSM which

was developed in 1980s based on data collected from one organisation alone, the SVS instrument have been tested with more recent data (from 1990s onwards) across diverse regions and cultures (more than 60,000 responses from 60 countries). Thirdly, the SVS instrument assesses how important these values are as 'guiding principles of one's life' rather than desirable end states or ideal behaviours. This can help eliminate the chance of situational variables having a strong impact on the respondents (Dahl, 2004). Moreover, different from RVS and CVF which collect ipsative data, i.e. values ranking, SVS collects normative data, i.e. values rating, therefore the score generated can be used as independent variables in statistical analysis. Meanwhile, the rating rather than ranking scale measure does not force individuals to choose between values they may hold equally important. Therefore, it is concluded that the SVS instrument is a useful, well-researched and tested vocabulary to communicate values between individuals and those of their organisation, and hence an appropriate instrument for this study.

The questionnaire was a slightly adapted form of the SVS, to speak in language relevant to the construction respondents, and focuses on 'working life' rather than life in general (See Appendix 7). For example, 'A Spiritual life' was changed to 'Spirituality in work', 'An exciting life' was changed to 'Excitement in work' and 'A world of beauty' was changed to 'Aesthetics'.

A scale use correction process was conducted using the individual's mean rating of all value items as a covariate to centre each participant's responses (Schwartz and Littrell, 2007). These centred value scores (CVS), rather than the raw scores, were then used in the analysis.

3.5.1.2 Workshop

Rekom et al. (2006) argue that instruments such as the RVS and the SVS have some drawbacks when establishing the core values. They claim that it is

methodologically difficult to identify socially desirable answers from values effectively underlying respondents' concrete behaviour and there is no guarantee that these lists include the specific core values of the organisation. Schwartz (1992) also pointed out that, because people express values in real-life contexts, much will be gained from methods that embed values in concrete everyday situations.

For these reasons, follow-up workshops were held to discuss the survey results, and provide the opportunity for employees to relate values to their everyday work practice. It focused on the subjective experience and perception and involved direct interaction between individuals in a group setting. Qualitative data were collected, which helped to gain deeper insight into people's shared understandings of organisational values.

3.5.1.3 Pilot study

Prior to the major research, a pilot values study was carried out in one office within the case organisation to test whether the main research design was sound and research protocols could be followed, and whether proposed methods or instruments were appropriate. Section 4.2.1 presents the process and results of the pilot study.

In phase 1, a pragmatic method and system of philosophy was used to choose methods that are fit for the purpose of the research. Questionnaire survey was used to collect objective data and enabled deductive analysis to identify employees' personal values. For a sample scale of 456 people, this is the most efficient and economic way to collect employees' values proposition. Workshop discussions facilitate the collaborative exploration of real meaning of these values in an organisational context. Subjective data was collected and inductive reasoning was adopted. The two methods complimented each other to reveal the collective organisational values for the company. Although there are other

methods available which may also help establish the link between individual and organisational values, e.g. grounded theory, the time and cost to involve 456 individuals into the research would outweigh the merits it may offer. Overall, mixed-methods approach, with its methodological pluralism, provides this research with its breadth and depth.

3.5.2 Methodological design for Phase 2

The phase 2 of the research adopted an interpretivist paradigm, it is subjective in nature, and explores the real meaning of sustainable workplace. Some qualitative methods and techniques were used as discussed below.

3.5.2.1 Qualitative content analysis of documents

A qualitative content analysis was carried out in phase 2 to analyse the available practical guidance of sustainable workplaces. The aim was to analyse the existing guidance and construct a conceptual framework to guide further research and practice.

Qualitative content analysis, and in particular, thematic analysis, was applied to compressing large volumes of data into fewer content categories. It is a method that is often used to analyse data in primary qualitative research, and 'involves the identification of prominent or recurrent themes in the literature, and summarising the findings of the different studies under thematic headings' (Dixon-Woods et al., 2005, p.47).

Hsieh and Shannon (2005) claim that there are three approaches of content analysis: conventional, directed, or summative. In conventional content analysis, researchers immerse themselves in the data to allow new insights to emerge, and avoid using preconceived categories (Kondracki and Wellman, 2002). Categories are derived from data during data analysis, which allow researcher to gain a richer understanding of a phenomenon. In directed content analysis, the

researcher uses existing theory or prior research to develop the initial coding scheme prior to beginning to analyse the data (Kyngas and Vanhanen, 1999). As analysis proceeds, additional codes are developed, and the initial coding scheme is revised and refined. This provides researchers the opportunity to extend or refine existing theory. Summative content analysis starts with identifying and quantifying certain words or content in text with the purpose of understanding the contextual use of the words or content. This is followed by the process of interpretation to discover underlying meanings of the words or the content (Morse and Field, 1995). The text is often approached as single words or in relation to particular content. An analysis of the patterns leads to an interpretation of the contextual meaning of specific terms or content (Hsieh and Shannon, 2005).

In phase 2 of the research, directed content analysis was applied. The three dimensions of sustainability as defined in the concept of 'triple bottom line' (Elkington, 1997), was used to help to determine the initial coding scheme, with the aim to extend the general three dimensional SD model into a conceptual sustainable workplace framework. The general SD model guided the analysis, whilst the newly identified categories helped to further refine and extend the general SD model into a more workplace oriented framework. This process not only help to reveal the gaps in the existing guidance documents, but also necessitated and facilitated the establishment of a conceptual framework of sustainable workplace.

3.5.2.2 Data triangulation

The proposed conceptual framework of the sustainable workplace adopts the three dimensional SD model and brings together the otherwise disparate fields of sustainability into consideration, with the aim of scoping the key issues in the SD of workplace. However, the framework alone is not sufficient; a set of indicators needs to be developed to support the framework. It is believed that these

indicators should be specific rather than generic, i.e. 'tailor-made' to address the needs of the workplace in question rather than 'one-size-fit-all' indicators.

To produce these indicators, data triangulation was used to combine the following data:

- 1) primary data, i.e. the first hand data obtained from the workshops in the sponsoring company, with regard to the important workplace development issues perceived by the employees
- 2) Secondary data, i.e. indicators from existing guidance documents

The data triangulation process not only articulated a set of sustainable workplace indicators for the organisation, but also made sure that they addressed the organisation's specific needs, therefore providing measures for the key issues that every employee cares about.

4 RESEARCH UNDERTAKEN

4.1 INTRODUCTION

This chapter presents the research undertaken to meet the aim and objectives of the EngD project as stated in Chapter 2. The research activities were conducted in accordance with the methodology described in Chapter 3, and has been divided into two phases: Phase 1 focuses on an organisational values and behaviours study carried out in the sponsoring company, which prompted further research into the sustainable workplace (Phase 2). Where references are made to the appended papers the reader is requested to read each paper in its entirety before returning to the thesis.

4.2 PHASE 1: ORGANISATIONAL VALUES AND BEHAVIOURS STUDY

Phase 1 of the project was carried out to articulate a set of collective organisational values and behaviours for the sponsoring company, which, as discussed in Chapter 2, would serve as a solid foundation for the organisational development.

The research started from a search in the company's internet and intranet websites, together with several informal interviews with employees, to identify relevant documents that existed within the organisation. The investigation showed that, although the company had formal vision and mission statements published on the websites, there was little mention of organisational and human values. Furthermore, these statements had been produced by the senior management alone, hence employees were either unaware of them, or perceived them as irrelevant to their work.

In order to apply VBM within the organisation, phase 1 of the research was designed to identify employees' individual values and link these to organisational shared values, therefore establishing a set of collective organisational values for the sponsoring company. The process involved a pilot study within one UK office, an organisation-wide questionnaire survey, and six follow-up workshops. The major research activities undertaken are discussed below.

4.2.1 Pilot study

This pilot study was carried out in the Birmingham office of the sponsoring company. It adopted a bottom-up approach which emphasised characterising an organisation's values by surveying the values of its members (See Appendix 1). The detailed process is as follows.

4.2.1.1 Questionnaire Survey

The purpose of this questionnaire survey was to capture employees' personal values and identify organisational shared values.

Step 1: Administer Individual Values Questionnaire Survey

A brief introduction of the survey was circulated to all staff in the office via email, together with an electronic version of the Values Questionnaire. With support from the office director, a total of 25 questionnaires were completed and returned, which represented a 100 percent response rate.

Step 2: Analysis and Presentation of Values Survey Data

The questionnaire responses were processed using Microsoft Excel Spreadsheet. Value scores were aggregated and analysed against Schwartz's 56 values items.

Step 3: Present survey results

The values of individual respondents were plotted in a chart (Figure 4.1). This allowed people to compare their own value scores against the organisational average scores.

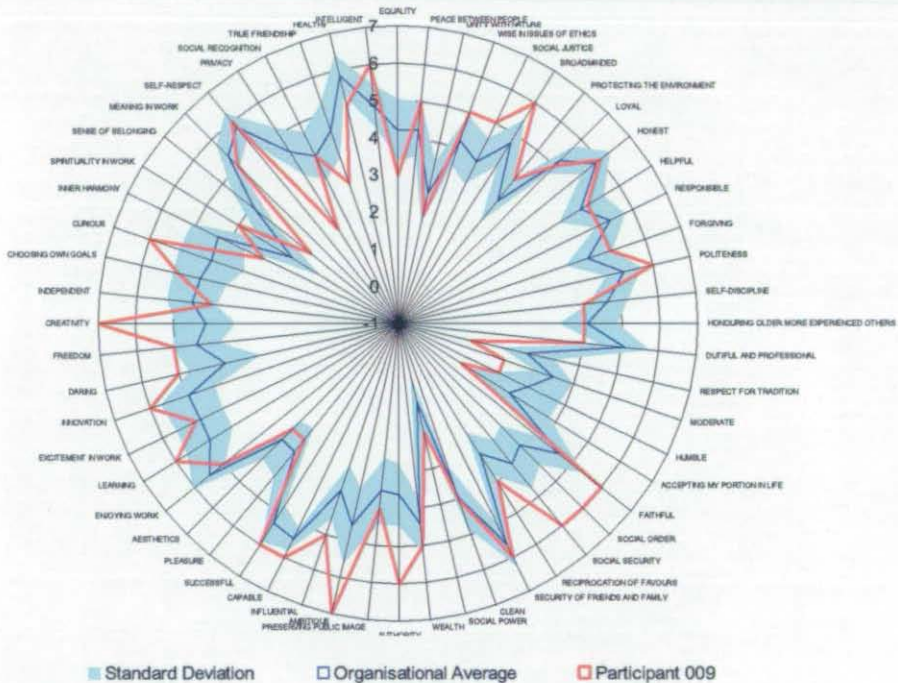


Figure 4.1 Example of an individual's values chart

Furthermore, the number of people who perceived each value item as of high, medium and low importance was calculated. The value items were then prioritised. Table 4.1 illustrates the supremely important values viewed by employees in the Birmingham office.

Table 4.1 Very/supremely important values viewed by the individuals

Category	Value statement	Very important or supremely important (5,6,7)	Organisational Standard Deviation of Individual Values Scores
1	CAPABLE	23	0.650641
2	HONEST	23	0.943398
3	RESPONSIBLE	22	0.852447
4	MEANING IN WORK	22	0.860233
5	SELF-RESPECT	22	0.912871
6	HEALTHY	22	1.106044
7	ENJOYING WORK	20	1.084743
8	POLITENESS	19	0.957427
9	LOYAL	19	1.040833
10	SUCCESSFUL	19	1.144552

Meanwhile, differences between the genders, professional disciplines and management levels were also examined by analysing the responses from different sub-groups. Figure 4.2-4.4 illustrate some of these differences.

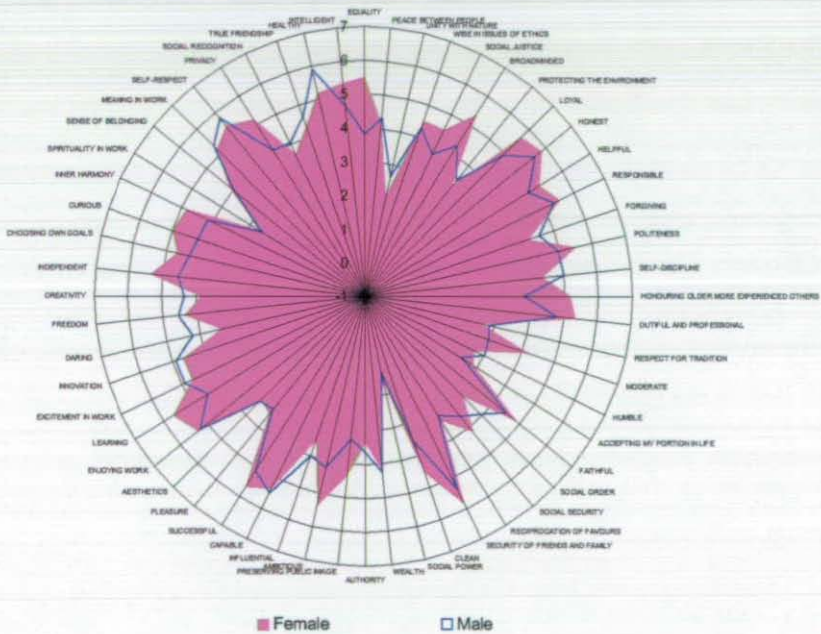


Figure 4.2 Value differences between male and female employees

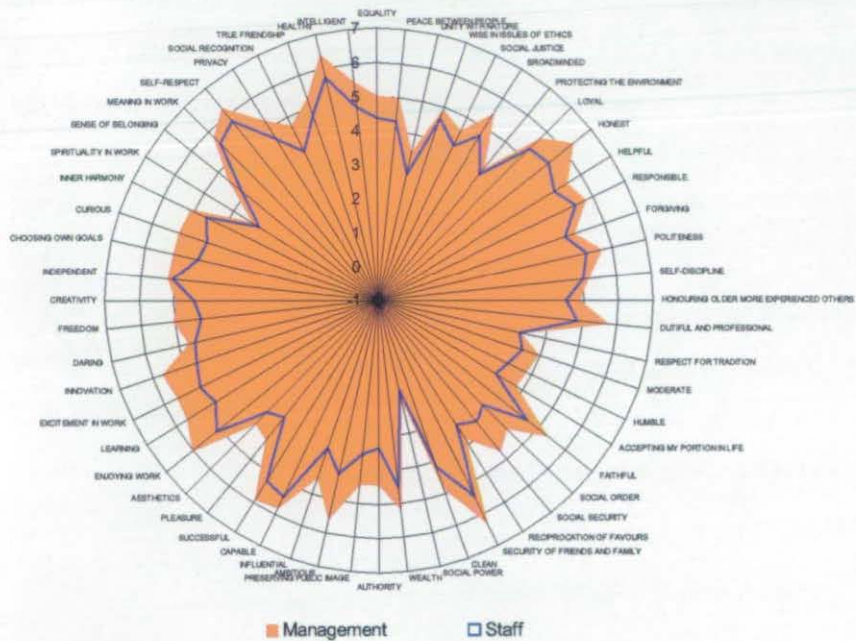


Figure 4.3 Value differences between management and staff

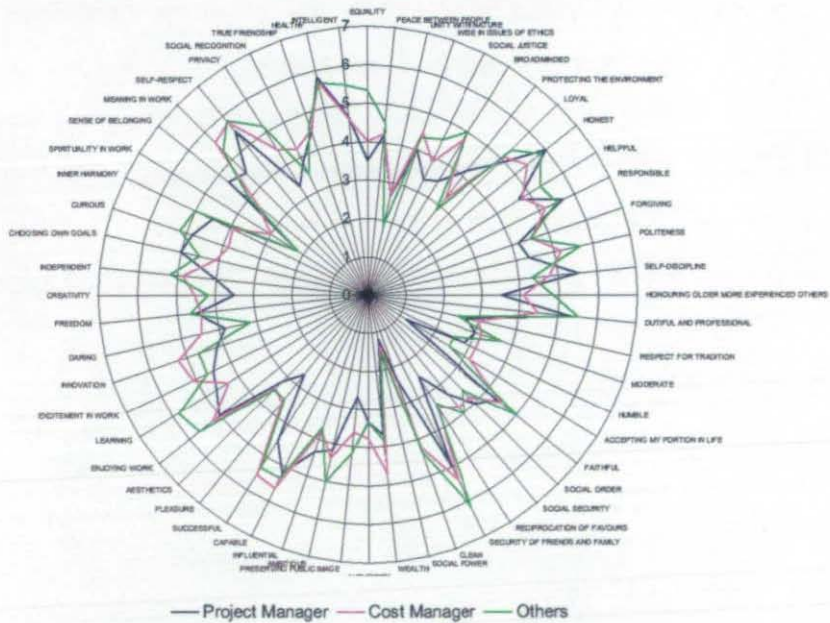


Figure 4.4 Value differences between professional disciplines

The questionnaire survey enabled the participants to think about their own values and believes. As a useful tool, it makes the values visible, comparable and more importantly, helps to reveal the strength and alignment of the values within the office, from which the core values of the organisation can be identified.

4.2.1.2 Workshop

Further to the survey, a half-day workshop was designed and held in the office at the end of 2004. The purpose of the workshop was to create an environment for people to share their individual values, define organisational values in a collective effort, and link them to work practices. The detailed process used in the workshop is stated below.

Step 1: Pre-workshop Preparation

Before the workshop, people's experiences and their length of service in the organisation were used as criteria to form four workshop groups. The groups' value charts were then produced by plotting all the group members' value diagrams in one chart. Furthermore, Excel spreadsheet was established to calculate the distribution frequency of each value items. This facilitated the identification of the most and least important values for each group. Coloured dots were then used to highlight these values in the group values charts. Figure 4.5 shows an example of the group values chart.

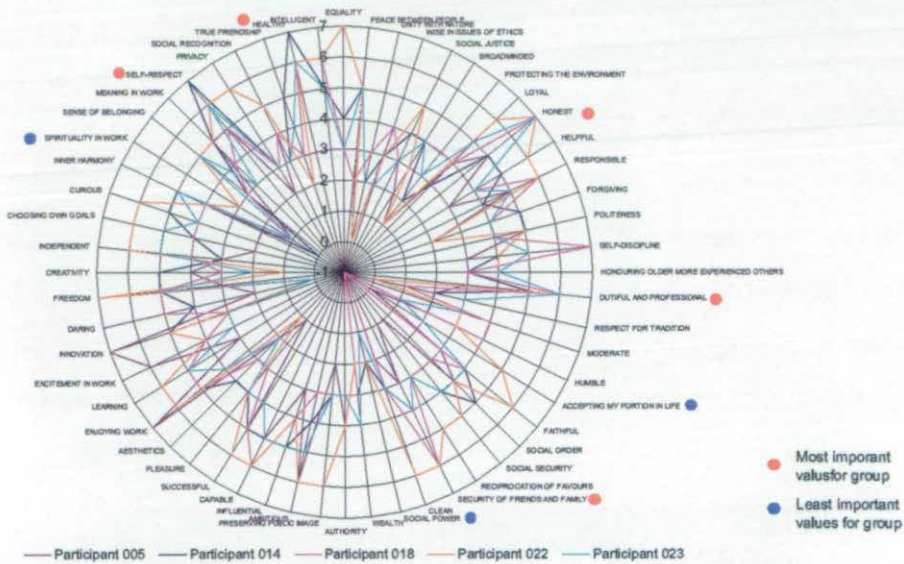


Figure 4.5 Example of group values chart

One week before the workshop, individuals' values charts were distributed to all workshop participants, together with their group values charts. A detailed cover letter was included in order to review the purpose of the study, explain the individual and group values charts, and provide the details of the forthcoming workshop.

Step 2: Workshop Discussion

After an introductory presentation (outlining values and their link to organisational culture and strategy), each workshop group gathered together to discuss the following two questions:

Q1: Why are these values of high and low importance for your work in Currie & Brown?

Q2: How are the peaks (important values) reflected in Currie & Brown's work practices?

Group discussions helped communicate and justify the most important values for the group, express them in their own words and identify their link to company practices.

The most important values and their link to Currie & Brown’s work practices were collaboratively plotted onto a blank values chart by using post-it notes, with the aim to build an overall values model of the Birmingham Office (Figure 4.6). The workshop concluded with a plenary session for employees to summarise the findings from the workshop discussion; a number of valuable suggestions were proposed by the employees.



Figure 4.6 Organisational values chart

Step 3: Post workshop activities

After the workshop, the organisational values model was displayed in the workplace to stimulate further debate. This model was then used to define the organisation’s values. Employees were interviewed to collect feedback to the workshop.

4.2.1.3 Outcomes of the pilot study

Organisational core values

This values study opened a values dialogue among all the participants. It helped people to identify their shared values within the office. The data analysis revealed that the core values (Top 10) for the Birmingham Office were:

- Capable
- Honest
- Responsible
- Self Respect
- Healthy
- Meaning in Work
- Successful
- Security of Friends and Family
- Politeness
- Enjoying Work

Values-related work practices

In the workshop discussion and interview, people were asked to link the values with their work practices in the organisation. Several key issues were raised including:

- the lack of two-way communication
- the importance of teamwork
- the difficulty in keeping work-life balance

Office values statements

As a result, the whole process informed the compilation of organisational values statements that described core beliefs and attitudes. The individual values statements were presented in descending order of importance and have already been used in recruitment advertising with the intention of demonstrating the company's identity and attracting the people who not only have suitable professional background, but also share the same values as the organisation.

In summary, the method used in this study was found to be a simple and effective way of understanding, expressing and sharing individuals' and organisational values. Exploring values helped the employees to understand their own values and the organisational shared values. The feedback from the participants was positive. Many participants expressed that this was the first time in their life that they thought about their own values and beliefs seriously, tried to understand and express value in their own terms, and communicated their expectations with colleagues. They found it interesting and stimulating. Meanwhile, they hoped that the management will respect these values and integrate them within the business strategy.

Furthermore, the director of Currie & Brown Birmingham Office gave the following comment to this study:

"The study is, in the first instance, helping all employees to understand how the beliefs and values of each other as individuals and as teams can be attuned to create an office environment that compliments the vision of the business. An extension of the study to align our values with those of our customers will help create an environment that runs on 'positive energy' that focuses on fulfilment of their needs."

The research findings from the pilot study are detailed in paper 1 (See Appendix 1). It has also been published as a case study in the VALiD project brochure (Appendix 6).

4.2.1.4 Lessons learnt from the pilot study

The pilot study offered reassurance that the research was beneficial to the company, and the research design was feasible. Nevertheless, it was also noted that a few improvements could be made to the process, which included:

Values items vs. values categories

The data analysis carried out in the pilot study was based on the 56 values items within the Schwartz's values framework. This led the analysis into detailed values items, while potentially losing sight of the ten values categories and the interrelationships between them, which are considered to be more important to the development of the organisation. Therefore, it was decided that the subsequent study should include an analysis based on the ten values categories.

Data normalisation

Because people use scales differently, some prefer to use higher scores on most values items whilst others use rather low scores instead. This may lead to distorted results from the analysis. One way to mitigate this problem is to focus on the frequencies of very high and very low score in people's ratings, as used in the pilot study, but this is rather time consuming and all the other results, such as subgroup comparisons, are still subject to inaccuracy. Therefore, a data normalisation process should be applied to try to minimise this problem.

Length of the workshop

Most participants in the workshop pointed out that the half-day workshop was too short and restricted the depth of discussion. Therefore, longer workshops were needed to enable a more thorough discussion.

In summary, the pilot study facilitated the development of a set of office values statements. Further refinements were made to the analytical method and instrument. The results were presented to the management board in January 2005; the positive feedback from the pilot study led to the decision that the research should be rolled-out across the organisation.

4.2.2 Organisation-wide values survey

Following the success of the pilot study, a roll-out plan was set up to conduct the values survey across the organisation. Prior to the survey, presentations were given to the management board, the company's two UK-based strategic business units (SBU) management meetings, head office, back office (including finance and human resource departments), and several large regional offices within the company, to brief them on the background information for the upcoming survey and get as many people involved as possible. These face-to-face contacts enhanced understanding and communication.

Later, an organisation-wide questionnaire survey was conducted amongst all the employees to capture their personal value priorities in an efficient and economic way, and to support a cross-sectional study. The values questionnaire was sent to every UK employee (456 in total) of the company based in its 16 UK offices in mid-2005. With the support from the senior management, a total of 411 (90%) anonymous responses were obtained giving a representative picture of the organisational values profile.

This organisational survey, with its wide coverage and high response rate, provides a much richer and wider picture of Currie & Brown's values profile. Through the survey, employees' personal values were identified, and shared values within the organisation were articulated. Values priorities and diversities within the organisation were also revealed. This not only provided a solid foundation for the establishment of collective organisational values, but also

facilitated better diversity management within the organisation. The detailed process and results from the survey are discussed in paper 2 and paper 3.

4.2.3 Values workshops

The values survey provided an insight into people's personal values and organisational shared values; however, some claimed that survey instruments such as the RVS and the SVS have some drawbacks when establishing the core values. Rekom et al. (2006) claim that it is methodologically difficult to differentiate socially desirable answers and values effectively underlying respondents' concrete behaviour, and there is no guarantee that these lists include the specific core values of the organisation. Schwartz (1992) also pointed out that, because people express values in real-life contexts, much will be gained from methods that embed values in concrete everyday situations. Therefore, six follow-up workshops were held within the organisation, and in total 142 staff days were spent in attending the workshops. These workshops provided opportunities for employees to relate values to their everyday work practice, and focused on the subjective experience and perception and involved direct interaction between individuals in a group setting to gain deeper insight. Table 4.2 provides an overview of these workshops.

Table 4.2 Overview of the values workshops

Workshop	Date	Venue	Nr. of attendees	Key Tasks	Main outputs
1	19 th Jan 2006	Currie & Brown Glasgow Office	25	1) Briefing the survey results 2) Group discussions on 'What should be the most important values within the company' 3) Sharing group discussion results 4) Identifying and prioritising shared values 5) Developing of draft values statements	Draft values statements
2	2 nd Feb 2006	Institute of Directors, London	24	1) Reflecting on Values Statements 2) Sharing the feedbacks of pre-workshop activity 3) Developing draft Behaviours Statements	Draft behaviours statements and related mechanisms
3	6 th Apr 2006	The design Studio, Loughborough University	15	1) Analysing behaviours statements in terms of their importance & achievability 2) Prioritising Behaviours Statements 3) Reflecting on the Selected Behaviours Statements	Prioritised Behaviours Statements
4	26 th Jun 2006	Hilton Hotel, Glasgow	27	1) Reflecting on Values & Behaviours Statements 2) Prioritising mechanisms 3) Analysis mechanisms	Most powerful mechanisms
5	25 th Sep 2006	The Royal Institute of British Architects, London	21	Analysing 'top-down' and 'bottom-up' version of values and behaviours statements	Comments on 'top-down' statements
6	21 st May 2007	Royal Horse Guard Hotel, London	18	a) Reviewing the whole process of developing values & Behaviour Statements b) Finalising the statements c) identifying important behaviours for the organisation	Values Group launch of the Currie & Brown Values and Behaviours Statements

4.2.3.1 Workshop 1

Further to the questionnaire survey, a one-day workshop was held with the aim of creating an environment for people to share their individual values with others, to explain the meaning of these values for their working life and identify the core shared values of the organisation. It was held in Currie & Brown's Glasgow office on 19th Jan 2006. 25 values group members attended the workshop.

a) Pre workshop

The early preparations for the workshops involved establishing a team of people from each office to represent the right mix of the employees as a whole. Twenty-six staff were invited to form a values group using the following criteria: a) select individuals who were enthusiastic about the study, respected in their offices, and good communicators; b) keep the balance between people from different age, gender, ethnic, geographic location, professional discipline, staff grade and management level; c) exclude management board members to avoid hindrance of expression, although the outcomes were presented to and discussed with them at the end of the research. The selection was endorsed by six strategic business unit directors.

Six workshop groups were formed with a mix from different backgrounds. Two external facilitators from Loughborough University guided the activity, with the aim of overcoming the insider's 'lack of awareness', avoiding 'subjectivity bias' (Schein, 1992) and allowing free expression and fair control of the progress.

One month before the workshop, each values group member was asked to conduct a pre-workshop activity within his/her base office to gather employees' opinions on 'What should be the most important values in the company, and why?' An information pack was provided, which included detailed instructions, office/organisational values charts and values survey summary results. The pre-workshop activity was undertaken in all UK offices across the organisation and involved the majority of the employees.

b) Workshop

Workshop 1 comprised the following steps:

- 1) Introduction and explanation of the workshop process
- 2) Briefing the survey results

- 3) Group discussions on 'What should be the most important values within the company'
- 4) Sharing group discussion results
- 5) Identifying and prioritising shared values
- 6) Developing draft values statements
- 7) Conclusion

The details of this workshop were presented as part of paper 2.

C) Post workshop

Following the workshop the draft values statements were sent to everyone within the organisation for comment. The cycling of materials between the participants helped gain higher levels of commitment from a larger number of people (Whyte et al., 1991). Several local office meetings were held to help engage the majority of employees in a dialogue about the organisation's values proposition, collect comments and feedback to the values group for discussion. The whole process ensured that the statements would reflect the shared values of all employees of the company.

4.2.3.2 Workshop 2

According to Schwartz (1992), because people express values in real-life contexts, much will be gained from methods that embed values in concrete everyday situations. In order to translate the identified values into workplace behaviours, another one-day workshop was held in Institute of Directors in London on 2nd Feb 2006. 24 values group members attended the workshop. The venue was deliberately located out of Currie & Brown offices to avoid distraction and therefore enable the free flow of discussion. The CEO of the company also took part in the workshop.

a) Pre workshop

Before the workshop, the draft values statements developed in workshop 1 were displayed in each office. All the employees were asked to think about "What should be our behaviours in relation to our key values?" The values group members facilitated the discussion in their own offices and approximately 500 post-it-notes with feedback were collected, upon which the workshop discussion was based.

b) Workshop

Workshop 2 comprised the following steps:

- 1) Reflecting on Values Statements
- 2) Sharing the feedback of pre-workshop activity
- 3) Developing draft Behaviours Statements
- 4) Conclusions

The workshop started with the reflection of the values statements. Some changes and aggregation were made to improve the wording of the values statements.

This was followed by a session of sharing the pre-workshop results from each office. All the post-it notes from each office were placed around their offices' values charts. Six workshop groups were then formed and each of them was tasked to focus on one or two values statements. The group members collected all the post-it-notes that are relevant to one particular values statement, and group them into a few behaviours. In total 43 draft behaviour statements were developed in Workshop 2 by the group members.

During this process, it was found that a considerable proportion (about 50%) of the post-it-notes were not about behaviours, but mechanisms which can help to achieve the behaviours. They were documented for further study.

Listed below is an example of values, behaviours and mechanisms developed in workshop 2:

Schwartz Values category: Achievement

Values statement:

"The successes and achievement of the employees are recognised and rewarded."

Behaviour Statements:

- Praise given where praise is due
- We recognise and encourage increased responsibility
- Sharing a part of the Company's success
- We recognise effort and commitment and promote this to inspire personal and collective growth

Mechanisms

- Finding the aspects of our work to keep individuals interest
- Reward to encourage – verbally and monetary; Bonus schemes – group and individual; Different awards for different aspects of work
- Recognise achievement, even small ones even if just a thank you
- Share the rewards with employees, spread share membership across the staff to motivate through ownership, Pay bonus in shares not in £, start a tax effective share ownership scheme
- Individual pay structure
- A Christmas bonus at the end of November

- R & R Policy – local by office, regional and national. The larger the area the larger the reward, rewards should be transparent and not a secret, Initiative is rewarded
- People to be more commercially aware
- More social interaction with staff on a weekly / monthly / bi-annual basis is required
- Ensure good communication within team – identify problems and weaknesses, regular feedback to individual staff members, line manager to provide more regular feedback, not just at appraisals
- Management of people contracts – very little focus internally on service level and output
- Promotion of the success to the rest of the business
- More publicity given to particular cases of recognition and reward, make success an achievable target
- Appraisals – defined goals and objectives linked to rewards
- Don't take credit for work that isn't yours
- House Points / gold star nationally for exceptional service / work
- Encourage motivation and good efficiency
- Celebrate the successes, pay the bill
- Public recognition through newsletter

c) Post workshop

The workshop outcomes were distributed to every employee of the company for comments. Most employees support the statements drafted by the values group

but some minor changes were suggested to improve the wording of the statements.

After the workshop, a presentation was given to the Management Board of Currie & Brown to report the progress and outcomes of the workshops. There was a lengthy discussion regarding the survey and workshop outcomes. The values study was highly appreciated by the Board and at a subsequent board meeting, the Board decided to hold regular quarterly values workout sessions in the future. The CEO of the company also decided to host the Q&A Session in all the upcoming workshops.

Further, a presentation was given to all the office directors and divisional directors in a quarterly management review meeting. As a result, all the management in the company bought-in to the whole concept and were willing to offer their support whenever needed. Meanwhile, a telephone conference was also held to communicate the message from the management to the values group members.

4.2.3.3 Workshop 3

Following the success of the first two workshops, workshop 3 was aimed to reflecting and prioritising the behaviour statements. It was held in Loughborough University on 6th Apr 2006. 15 values group members attended the workshop.

a) Pre workshop

A behaviours rating sheet (see Table 4.3) was issued to every values group member before workshop 3. They were asked to organise office sessions to rate the importance and achievability of each behaviour statement. The results were summarised and fed back to the workshop by values group members.

Table 4.3 Example of behaviour rating sheet

Values Statement	Behaviour Statement	Importance		Achievability		Note
		Low=1	High=2	Low=1	High=2	
We care about the effect that our work has on the environment, both within the workplace and on society as a whole.	We will promote environmental awareness to staff and clients					
	To establish and review on a regular basis the Environmental Policy taking into account the changes in regulations and suggestions leading to environmental improvement					
	Inform staff of the environmental policy in force					
	We will all take responsibility to comply with the Environmental Policy and ensure others do likewise					
	Social Responsibility (e.g. who and where we work)					
We believe that loyalty should not be taken for granted. The honesty and integrity of our people must underpin everything we do. We treat others the way we expect to be treated ourselves.	Respect the opinions of others by active listening					
	Invite and volunteer constructive feedback					
	Take ownership of your actions to deliver a professional service (do a good job)					
	Be courteous and polite and treat everyone as equals					
	Communicate well by being open and frank					

b) Workshop

Workshop 3 comprised the following steps:

- 1) Analysing behaviours statements in terms of their importance and achievability
- 2) Prioritising Behaviours Statements
- 3) Reflecting on the Selected Behaviours Statements
- 4) Conclusion

In the workshop, 43 behaviours statements were discussed and prioritised. Five workshop groups were established with each group focused on several behaviour statements. Behaviour statement slips were placed on a big metrics (See figure 4.7) according to their importance and achievability. As a result, 22 behaviour statements were selected, which represented the behaviours that the values group thought the business should focus on.

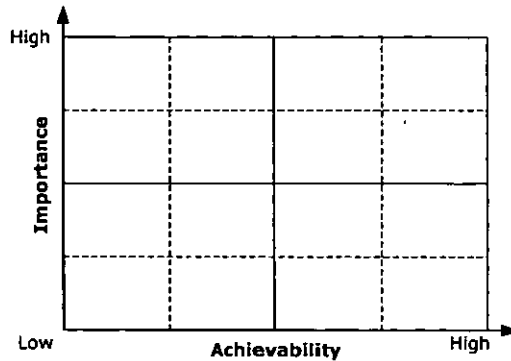


Figure 4.7 Behavioural statements evaluation chart

Meanwhile, the values and behaviours statements were reviewed again by the group members. A few changes were discussed to make the wording more consistent in terms of the format and style.

c) Post workshop

All the statements were distributed to every employee for further comments.

4.2.3.4 Workshop 4

a) Pre workshop

Prior to workshop 4, each office was given a few behaviour statements and was asked to use a mechanisms rating sheet to:

- 1) Identify the relevant mechanisms against each behaviour statements
- 2) Rate each of the mechanisms using a 5-point scale (0~4), where: 0 means not at all important or powerful and 4 means extremely important or powerful

Each office was also asked to discuss the following:

- 1) How difficult it is to implement these mechanisms
- 2) To what extent these mechanisms can be implemented across the business

The feedback information from each office was collected and analysed by the RE. The analysis identified the top 25 mechanisms according to the total rating received, average rating, and frequency of being selected. These served as base material for workshop discussion.

b) Workshop

Workshop 4 comprised the following steps:

- 1) Briefing
- 2) Reflecting on Values and Behaviours Statements
- 3) Prioritising mechanisms
- 4) Analysing mechanisms
- 5) Conclusions

Based on the pre workshop analysis, the workshop discussion facilitated the identification of 13 most important and powerful mechanisms (See Appendix 8). For each of these mechanisms, analysis was conducted to identify the benefits, sacrifices and resources by using the following equation (VALiD, 2005):

$$\text{Value} = \frac{\text{Benefits-Sacrifices}}{\text{Resources}}$$

The assessment helped the values group members to think from the business management's point of view. As a result, 7 mechanisms (highlighted in bold in Appendix 8) were suggested to the management of the business for consideration.

c) Post workshop

The outcomes of the workshop were distributed to every employee for comments. The group CEO pronounced an implementation plan in a subsequent forum.

4.2.3.5 Workshop 5

Workshop 1~4 facilitated the development of a set of values and behaviour statements. They were developed by using a bottom-up approach and represented employees' shared values and beliefs within the organisation. It was found that these statements had a strong focus on 'people', 'communication' and 'leadership' issues.

In parallel to this, the senior management of Currie & Brown developed a set of values and behaviours statements from the managements' point of view. Based on the company and other stakeholders' needs, these statements were more customer-oriented and incorporated the commercial needs of the business.

To bring the bottom up and top down perspectives together, a one-day workshop was held on 25th Sep 2006 in the Royal Institute of British Architects, London. The workshop was facilitated by Loughborough University, and 21 values group members attended.

a) Pre workshop

Unlike the previous workshops, no pre workshop activities were carried out before this workshop. This was deliberately designed in order to collect participants' first reaction when they see the top-down values and behaviours statements developed by the senior management.

b) Workshop

The main activity of workshop 5 was to map the 'top down' and 'bottom-up' values and behaviours statements and assess the pros and cons of each version.

In the workshop, values group members were divided into 5 groups. The five priority values developed by the senior management (See Table 4.4) were discussed within each group, and were compared with the thirteen 'bottom-up' values produced by the Values Group. The differences were highlighted and challenged. Generally speaking, it was found that there were many similarities between the two, and the group members were happy to include some of the thoughts from the management, such as the customer-oriented values into the statements.

c) Post workshop

After the workshop, the research group had a few meetings to review all the comments raised in the workshop, and check the statements against Schwartz's values framework. Values and Behaviours Statements were revised taking into account both Values Group and senior managements' thoughts.

4.2.3.6 Workshop 6

Workshop 6 was held on 21st May 2007 at Royal Horse Guard Hotel, London. The themes of the workshop were to finalise Currie & Brown's values and behaviour statements, plan for the implementation within the company and celebrate the success of the values group's work.

In this workshop, the values group members reviewed the whole process of developing Currie & Brown's Values and Behaviour Statements; and agreed on final the statements as shown below:

Customer - We treat customers the way we would want to be treated

- Do what is right for the customer
- Build enduring relationships
- Always make it easy to do business with us

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- Communicate effectively and regularly
- Always say thank you

People - We care for our people through a challenging and supportive working environment

- Encourage entrepreneurship and think creatively
- Respect the opinions of others
- Promote open and constructive feedback
- Manage performance firmly and fairly
- Recognise and reward achievement

Excellence - We strive for excellence

- Exceed the expectations of customers and colleagues
- Conduct all business with integrity and professionalism
- Think "Team"
- Encourage learning and self-development
- Embrace change willingly

Sustainability - We care about the effect we have on the environment

- Minimise the environmental impact of our business
- Ensure working environments are healthy and safe
- Cut out extravagance and waste
- Minimise our carbon footprint
- Promote environmental awareness

Furthermore, the group prioritised the behaviours statements and selected 4 key behaviours for the company. They were

- Communicate effectively and regularly
- Recognise and reward achievement
- Think "Team"
- Ensure working environments are healthy and safe

The workshop ended with a Celebration Dinner. The group CEO praised the values group's work, expressed management's full commitment to the values initiative, and encouraged every member to continuously contribute to the values work in the future.

4.2.4 Values Road Show

To kick-start the process of communicating and implementing the values and behaviours within the company, a values road show was carried out across the company's UK offices. Within a two month period, and with help from the office Values Group members, 12 Values Road Show visits were undertaken around Currie & Brown's UK offices. The road show presentation reviewed the values development journey, and highlighted the importance of these values and behaviours for the future of Currie & Brown. It gave employees an insight into what people need to do, individually and together, to achieve the vision of the company. Implementation priorities were communicated and opportunities were provided for people to ask questions, discuss concerns or contribute further suggestions. In general, the road show visits were well attended and the presentations were well received.

In Summary, the phase 1 of the research helped to make hidden values explicit and improve alignment and understanding between individuals and their host

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organisation. It also identified and prioritised values related behaviours and implementation mechanisms, thereby paving the way towards the adoption of VBM in the company.

Table 4.4 Three Versions of Values Statements

Schwartz Values Categories	Code	Bottom-Up Values Statements	Top-Down Values Statements	Final Values Statements	Final Behaviour Statements
Universalism	V1	We care about the effect that our work has on the environment, both within the workplace and on society as a whole.	Customer – we treat customers the way we would want to be treated.	Customer - We treat customers the way we would want to be treated	1. Do what is right for the customer 2. Build enduring relationships 3. Always make it easy to do business with us 4. Communicate effectively and regularly 5. Always say thank you
Others Orientated	V2	We believe that loyalty must not be taken for granted. We underpin everything we do with honesty and integrity. We treat others the way we expect to be treated ourselves. We deliver exceptional service to our clients by trusting and believing in our people. We strive to exceed expectations.	People – we care for our people through a challenging, supportive working environment. Excellence – we strive for quality through the development of our people and systems. Environment – we care about the effect we have on the environment in which we work.	People - We care for our people through a challenging and supportive working environment	1. Encourage entrepreneurship and think creatively 2. Respect the opinions of others 3. Promote open and constructive feedback 4. Manage performance firmly and fairly 5. Recognise and reward achievement
Conformity	V3	We take pride in our work.	Honesty – we conduct our business with integrity.	Excellence We strive for excellence	1. Exceed the expectations of customers and colleagues 2. Conduct all business with integrity and professionalism 3. Think "Team" 4. Encourage learning and self-development 5. Embrace change willingly
Security	V4	We balance work with personal wellbeing and promote healthy living.			
Achievement	V5	We recognise and reward our successes and achievement.			
Hedonism	V6	We encourage teamwork and deliver success through a motivational and supportive working environment.			
Stimulating Activity	V7	We embrace change by developing our people and our service(s). We encourage individuals to reach their full potential. We are a united and energetic company with an innovative and challenging approach.			
Self Direction	V8	We value freedom of expression.		Sustainability - We care about the effect we have on the environment	1. Minimise the environmental impact of our business 2. Ensure working environments are healthy and safe 3. Cut out extravagance and waste 4. Minimise our carbon footprint 5. Promote environmental awareness
Overarching Values		Enjoy work Overall satisfaction Promoting self respect			

4.3 PHASE 2: SUSTAINABLE WORKPLACE

Further to Phase 1 of the research, it was found that (as one of the four values of Currie & Brown) sustainability is rising up the agenda within the company. There is a strong desire amongst both employees and managements to develop the workplace in a more sustainable manner. Meanwhile, as a global construction management services organisation, Currie & Brown works with many leading organisations, and has become increasingly aware that it has to take responsibility for nature and society, because the company's market position will be determined by its performance against SD criteria. These internal and external needs highlighted the importance of applying the principles of sustainable development to the workplace context, which prompted further research into the sustainable workplace.

4.3.1 Guidance review

A literature review was conducted to explore the state of the art of the workplace sustainability research which focused on the following areas:

- a) Sustainable development in general
- b) Sustainable development in the workplace
- c) Compare and analyse the available practical guides

The outcomes of the review were summarised in paper 4 (Appendix 4).

Based on the review, sustainable workplaces could be defined as a holistic business philosophy, which, by embedding sustainable development principles into all aspects of workplace development, aims to deliver environmental, social and economic benefits over the long term, and facilitates the creation of a positive and sustainable society.

The review of the available practical guidance made it clear that, as an emerging and fast developing area, the research into sustainable workplaces is still fragmented and unbalanced. The majority of guidance places emphasis on environmental impacts arising from workplace activities, and aims to promote environmental awareness among the workforce. Whilst this may be appropriate in itself, it is of concern that other key aspects of sustainable development (i.e. social and economic aspects) have been overlooked to some extent. It is argued therefore that a holistic and balanced approach to developing sustainable workplaces, would be more appropriate, and in fact, is needed urgently.

4.3.2 Sustainable workplace framework and indicators

In academia as well as in corporate practice, there is a consensus that the notion of sustainability development implies rather a process for companies than a final outcome (e.g. Halme, 2001). This is a complicated process, which lead to many complexities confronting practitioners who are trying to implement the breadth and depth of the concept in the workplace: What aspects should be considered in the creation of sustainable workplace? How shall we measure them? These complexities obviously require in-depth research.

Based on the three dimensions of sustainability as defined in the concept of 'triple bottom line' (Elkington, 1997), directed content analysis was carried out to reveal the key aspects of sustainable workplaces against the three dimensions of sustainability. The results are discussed below.

Environmental dimension

The essential role that ecosystems play in supporting our workplace activities establishes an environmental imperative that must be respected by all. The aim is

to create an 'Eco-friendly' workplace. The existing guidance provides extensive discussion on this dimension and highlighted the following key aspects:

- 1) Environmental policies and management systems
- 2) Energy management
- 3) Water management
- 4) Materials and resources
- 5) Emissions, effluents and waste management
- 6) Transport
- 7) Product and service provision

It must be noted that environmental management relates not only to the environmental performance of the physical workplace, e.g. the materials used in the construction of the office building, the furniture and fittings in the office, but more importantly, it also considers the environmental impacts of the activities within the workplace, such as:

- 1) How we communicate - via email, telephone or post
- 2) How we store information - electronically or on paper
- 3) How we travel to work or meeting - walk, bike, public transportation, private car or reduce the travel by using virtual communication
- 4) How we select the office consumables and dispose of them
- 5) What product/service we produce/provide within our workplace – are they environmentally friendly or not?

...

The list is endless but all can be governed by the seven aspects mentioned above.

Social dimension

This dimension focuses on people within the workplace. Social development implies that the needs of the human being are met through the implementation and realisation of human rights. It promotes democracy to bring about the participation of the public in determining policy, as well as creating an environment for accountable governance. The aim is to create an 'ethical' workplace.

To structure the issues highlighted in the available guides, Maslow (1954)'s well known theory of the hierarchy of human needs was adapted. Maslow suggests that as individuals our behaviour responds to an escalating hierarchy of needs. In escalating order, Maslow lists these as 1) Physiological 2) Safety 3) Belongedness and love 4) Esteem and 5) Self-Actualisation. People's 'quality of life' can be characterised as the extent or degree to which a person or community can satisfy this hierarchical spectrum of needs. This spectrum ranges from basic physical needs to social needs, and from ego and self-esteem needs to cultural and self-actualisation (spiritual) needs. When relate these human needs to the workplace development, they could be interpreted into the following five key aspects:

- 1) Basic working conditions, e.g. provision of light, water (Physiological)
- 2) Absence of diseases and minimising workplace health risks, e.g. prevention of occupational diseases (safety)
- 3) Stable and comfortable workplace environment, e.g. employee inclusion (Belongedness and love)
- 4) Social coherence within workplace, e.g. competency building (Esteem)
- 5) Happiness and wellbeing within workplace, e.g. work-life balance (Self-actualisation)

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- 5) Happiness and wellbeing within workplace, e.g. work-life balance (Self-actualisation)

However, in the modern workplace, especially in developed countries, any legal workplace must satisfy the basic working conditions, therefore, generally speaking there is no need to consider aspect 1 in developed countries.

Economic Dimension

An organisation's ability to sustain a quality workplace depends on its ability to foster a strong and sustainable economic performance. It should be able to derive greater social/human benefits from the efficient and effective use of environmental assets, while providing the means for increased environmental protection and conservation. The themes emerged from the guidance documents covers the following key aspects:

- 1) Economic performance
- 2) Market presence
- 3) Indirect economic impact

For instance, an energy efficiency related cost saving, as a key issue covered in the existing guides, is just a factor contributing to the 'economic performance' aspect of the organisation.

Based on the discussion above, a conceptual framework for creating sustainable workplace was established as shown in Figure 4.8.

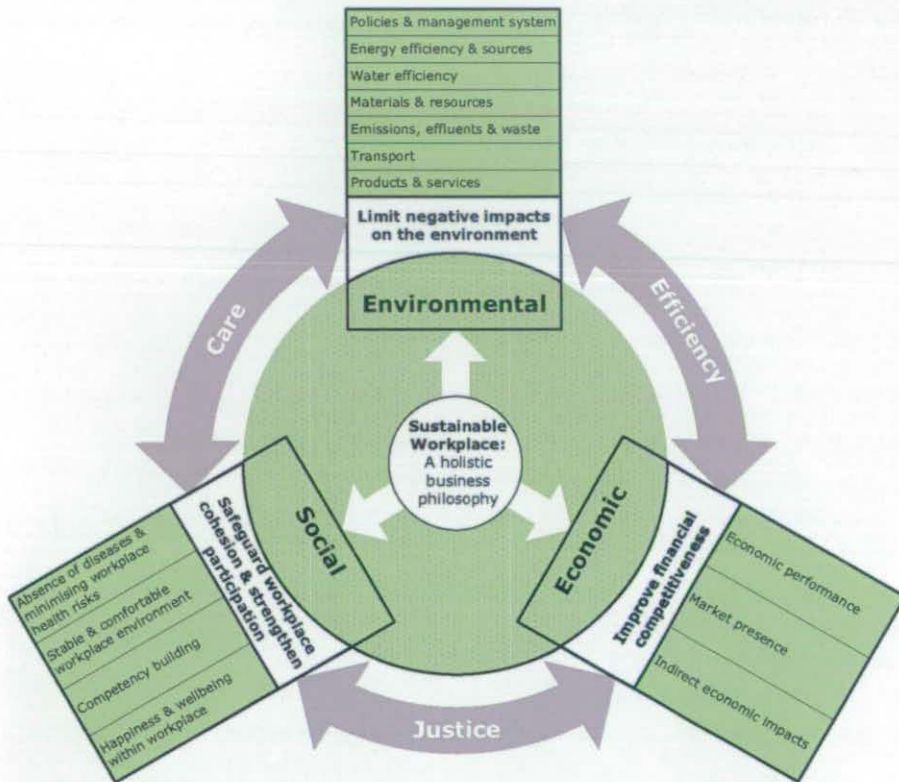


Figure 4.8 A conceptual framework for sustainable workplace

4.3.2.1 Bespoke indicators for sponsoring company

As discussed in paper 4 (Appendix 4), the framework alone cannot provide sufficient guidance; a set of indicators needs to be developed to support the framework. These indicators should be specific rather than generic, i.e. 'tailor-made' to address the needs of the workplace in question rather than following 'one-size-fit-all' indicators.

In order to develop some sustainable workplace indicators, the following three steps were undertaken:

Step 1 Gathering: gather sustainable workplace oriented indicators, where suitable indicators were not available, general sustainable development indicators were collected.

Step 2 Formation: Translate general sustainable development indicators into sustainable workplace oriented indicators

Step 3 Prioritisation: Prioritise these indicators according to their priority to the organisation as identified in the phase 1 of the research.

Step 1 Gathering

All sustainable workplace related indicators provided in the guidance documents were collected. Where suitable indicators were not available, general sustainable development indicators were collected from two sources:

- a) Sustainable development indicators in your pocket 2008 (DEFRA, 2008)
- b) Sustainability Reporting Guidelines v3.0 (Global Reporting Initiative, 2006),

Step 2 Formation

Whilst some indicators collected in step 1 can be directly applied in the workplace, other general sustainable development indicators were translated into workplace oriented indicators by narrowing their scope down thereby making them workplace specific.

Step 3 Selection

The indicators that can be used to measure key behaviours and facilitate the implementation of key mechanisms were selected (See Appendix 9). For example, the workplace social sustainability dimension covers the following aspects:

- Absence of diseases and minimising workplace health risks, e.g. prevention of occupational diseases (safety)
- Stable and comfortable workplace environment, e.g. employee inclusion (Belongedness and love)

- Social coherence within workplace, e.g. competency building (Esteem)
Happiness and wellbeing within workplace, e.g. work-life balance (Self-actualisation)
- Happiness and wellbeing within workplace

At present, the high priority behaviours identified through the values workshops in relation to this dimension is:

- Communicate effectively and regularly
- Think "team"

As highlighted by the values group members, communication within the workplace needs to be improved. This includes communication between staff and their clients/external project partners, staff and managers, and among colleagues, etc. Some of the values group members explained to the group why this is important:

"People in my office feel that we don't get a chance to speak to our office director. He's out about quite a lot. I mean... that's understandable, but even when he's in the office, his door is always closed. He hardly came out of his office. He made decisions for our office without even talking to us. Sometimes the news came from our friends in other offices."

"We haven't had a staff meeting for a long time. We don't know what's happening in the company, or even in the office. Surely that's not good for team building. More importantly, decisions are made everyday that might affect our work. We deserve to know more..."

Many values group member expressed the similar concern. Through the workshops, a few key business issues/mechanisms are identified and prioritised to address these problems, for example:

- Support from management (open door policy)
- Communication through office meetings encourages teamwork and motivation

To measure and monitor the progress indicators were selected, e.g.

- a) % of people who agree they are able to influence decisions affecting their work
- b) Number of staff meetings/team building events organised per year

In practice, collecting data for these indicators are not difficult. Data for indicator a could be collected through a questionnaire survey using Likert scale rating, and indicator b requires a straight forward number reporting, which is an existing section in the monthly office report which suffers from ignorance.

Although the company has not yet started to use these indicators, hence no figures were obtained formally, the issues highlighted by this research have already led to some positive changes at the workplace. For example, in a quarterly management meeting attended by all the office directors, the group CEO organised some group discussions among office directors to talk about these key business issues. Values group members have since reported some changes in their office, such as the directors started to leave their office door open (unless making confidential phone calls or holding confidential meetings); management board members started their quarterly visits to each UK office; in office refurbishment, break out areas were created for people to relax and communicate; an intranet section named 'the Currie House' was introduced where photos of office staff events were posted, etc.

In 2008, a company CSR group was set up within the organisation. One of the objectives of this group is to undertake and review the sustainable workplace

related action within the workplace. The framework and related indicators served as a useful tool to help achieve this objective.

4.4 SUMMARY

This chapter discussed the research undertaken to meet the aim and objectives of the EngD project. It provided an overview of the development of the project, and highlighted the main outcomes of each phase. The discussions of these results from both phases of this project are presented in the next chapter.

5 DISCUSSION

5.1 INTRODUCTION

This chapter provides a discussion of the research outcomes. Findings from the two research phases are presented respectively in section 5.2 and 5.3, and further combined findings are discussed in section 5.4.

5.2 FINDINGS FROM PHASE 1

Phase 1 of this research focuses on the organisational values and behaviours study. It used a structured multi-method approach which involved most employees, whose values profiles were collected and analysed through an organisation-wide survey. Six follow-up workshops and post workshop activities facilitated the sharing of common values and helped staff representatives develop their own organisational values statements, independent of the senior management, before a final stage of negotiation between the two groups. Meanwhile, a set of core-values-related workplace behaviours and relevant mechanisms were identified and communicated across the whole organisation.

The questionnaire survey was a useful tool to collect people's values propositions. Through the questionnaire survey, the employees' values priorities and diversities were revealed. Employees were encouraged to focus on values of high priority across the organisation so that a truly collectivistic culture could be established. Under this umbrella, values differences found between subgroups provide valuable information to facilitate mutual understanding between individuals and groups. This could help reduce conflict and allow the organisation to benefit from the differences of cultures, experiences and ideas. It is worth noting that the emphasis should always be on commonly shared values rather than values differences among employees, so that employees are able to stay focused on

what is important instead of worrying about how they are different to one another. McMillan-Capehart (2005, p.498) argue that the collectivistic culture is 'the overall guiding power that allows diversity to result in positive outcomes'. By implementing individualistic socialisation tactics within a collectivistic culture, organisations can benefit from employees' backgrounds and experiences, while promoting teamwork and a cohesive organisation.

In addition, the survey results enabled senior management to recognise the particular values priorities among the employees, which revealed some root causes of existing conflicts, and informed future business strategies, such as team formation and collaboration, recruitment and promotion, and employee care and development. These findings could enable employers to assess the extent to which they take into account the concerns of different groups of employees, and, while expecting full commitment from employees, to recognise their particular priorities to other aspects of working life. In addition, they could evoke a wider social awareness and concern. Indeed, the more people know about these values priorities and differences, the easier it is to understand and accommodate them within the organisation, which would lead to positive impacts on levels of motivation and job satisfaction among individuals, and hence the improvement in business performance.

The follow-up workshops and post workshop activities across the whole organisation brought together individuals to collectively make sense of the meaning of values. Values were discussed in an organisational context, and translated into a set of organisational behaviours and mechanisms. Core organisational values are fundamental in governing the workplace behaviours, and the mechanisms represented the desirable work practices. Through these workshops, values, behaviours and mechanisms were articulated, prioritised and effectively communicated across the organisation.

It could be argued that the process of creating the statements (entailing reflection and self-examination) is as valuable as the words that are ultimately written. It is arguably a unique but practical way to developing organisational values, which differs from other approaches in the following respect.

Schwartz's values theory (and methodology) has been successfully deployed in an organisational context bringing a number of business benefits, in contrast to all the comparative intercultural research applications. The survey provided insight into the employees' values system, and raised people's awareness in terms of values priority, their diversity and the interrelationships between these values. It is believed that this instrument can make values visible, comparable and, more importantly, help demonstrate the strength and alignment (or otherwise) of the values within the organisation, from which core organisational values could be identified and understood. Values perspectives were revealed that might otherwise have remained unseen. Furthermore, the survey results serve as a useful platform to initiate further debate and exploration of organisational values.

Unlike the more common senior-management driven approach to defining organisational values, this approach was owned by all members of the organisation. The survey helped participants become self-conscious and articulate about their own values and the following workshop discussions and communication between the values group and staff members enhanced awareness and understanding. Ideas and thoughts were encouraged, challenged and advanced throughout the process. As a result, an organisation-wide values dialogue was set in motion among staff to speak openly about their meaning in the workplace, and to voice concerns. By discussing what is valued in their work and how it should be carried out, people's values and associated behaviours became meaningful in an organisational context. This would be very difficult to achieve in the traditional top-down approach, where the senior management are

responsible for developing the organisational values with the staff being isolated from the process.

As a result, the process helped generate a sense of responsibility to ensure that values were identified, understood, integrated and lived. It empowers people in the organisation and connected them to the organisation's future. The derivation of the values statements formulated a values framework which can be used to make sure they and the organisation are on track. It also reminds people of values they do not share, which is also important.

Meanwhile, this approach helped change the notion of the traditional single leadership model, where top management held all responsibilities, to a distributed model where everyone is responsible for operational conduct. It helped the management realise that human values could form the basis of business strategy, and created a platform from which to define the organisational vision, mission and objectives.

Furthermore, in the process of developing the statements, values, behaviours and mechanism were analysed and prioritised. While the important values and behaviours were published as official statements on the company website, the mechanism rating sheet can serve as a very good frame of reference in the company's business management. It lists which mechanism(s) could help to improve a certain behaviour and thus reinforce a company values, and on the other hand, provides information about which behaviour(s) can be enhanced by implementing a certain mechanism. In one word, the table helped to establish the link between the values, behaviours and the mechanisms.

5.3 FINDINGS FROM PHASE 2

Phase 2 of the research started from a review of a number of practical guidance documents on creating sustainable workplaces. The available guidance has been

systematically categorised into two groups, i.e. ecological sustainability (ES) and human sustainability (HS) oriented guidance. These documents were then compared and analysed within a three-dimensional framework, with the aim to make them explicit in a systematic way to facilitate easy understanding and practice.

The guidance review highlighted a number of areas that are important in creating sustainable workplaces. Whilst these guides deal with particular aspects of workplace sustainability, they are not holistic or integrated. They fall into either ES or HS oriented categories, but few reports approach the concept of sustainable workplaces from both angles. The most developed is ecological oriented guidance (emphasis on the environmental impacts of office building/space/facilities and the workplace activities within), and promote environmental awareness among the workforce. These are generally more comprehensive than those in HS category, and many detailed methods, indicators and benchmarks are provided. The case studies presented in these guides reveal that many organisations are engaged in an ES oriented change process; experiences and valuable lessons are shared.

In contrast, the guidance in the HS category tends to be descriptive and only at a strategic level. This may be due to the fact that managing people in the workplace is a soft and more complicated task than managing environmental aspects. However, this reinforces the importance of providing useful guidance to lead people in the business through the change process. Benchmarks and indicators are useful to enable self-assessment and evaluation.

Furthermore, as shown in paper 4, many of those reports contain environmental, social and economic dimensions. However, none of the guidance reviewed was truly holistic with regard to the coverage of all three dimensions. The amount of coverage varies considerably between different sources. Most of the guides concentrate on the environmental dimension and social aspects are generally

discussed briefly, while economic aspects are typically mentioned in terms of energy efficiency related cost savings.

This study has revealed that as an emerging and fast developing area, the research into sustainable workplaces is still fragmented and unbalanced. Many guides place emphasis on environmental impacts arising from workplace activities, and aim to promote environmental awareness among the workforce. Although this may be appropriate in itself, it is of concern that other key aspects of sustainable development (i.e. social and economic aspects) are often overlooked. The guidance offered is necessary rather than sufficient. Whilst some guides provide methods and benchmarks to facilitate practice, many are largely of a strategic nature with little in the way of specific detailed recommendation. It is argued that a balanced and holistic approach is needed in the development of sustainable workplaces, considering social, economic and environmental challenges.

In practice, few organisations have been able to measure all their environmental-related impacts, and even fewer consider their other SD related obligations. There is a danger that traditional strategies that lack a comprehensive, holistic view of things may end up solving some problems only to create others. The conceptual framework proposed adopts the three dimensional SD model and brings together the otherwise disparate fields of sustainability into consideration, with the aim of scoping the key issues in the SD of workplace. The three dimensions consist of fourteen key factors as depicted in Figure 4.2. (Chapter 4). It could be used as a self-assessment tool, which focuses on strategic and management issues, and breaks down workplace sustainable development processes into manageable and easily digestible components. Furthermore, it links the organisational values and related key business issues to workplace sustainable development criteria, therefore could help integrate organisational values into work practices, improve organisational performance as well as employees' quality of life at work.

5.4 FURTHER DISCUSSION

Although the two phases of this study have their own focuses and can be implemented in the organisation as two separate initiatives, they are closely interrelated in this research.

First of all, phase 2 followed naturally from phase 1 of the research. Through the values and behaviour research, sustainability has been highlighted as one of the key values for the organisation. This triggered phase 2 of the research, which aimed to investigate ways to embed sustainability values into workplace development.

Secondly, a values-based approach was applied throughout the whole research. Values invoke feelings, define or direct us to goals, frame our attitudes, and provide standards against which the behaviours of individuals and societies can be judged. These underlying values are inherent driving forces that guide our beliefs and actions. Organisational values are the foundation of workplace behaviours and practices, and these values will directly dictate workplace sustainable performance. By linking the key factors of sustainable workplace development to the organisational key issues identified through the values and behaviours study, and selecting indicators to measure the development of these key issues, the organisational values become tangible in the management of the workplace. Misser (2005) claimed that 'they (companies) must adhere to the values and standards they have articulated for themselves. Long-term sustainable performance does not come from proclaiming a code of conduct but from putting it into daily action'. The sustainable workplace framework can be considered as a tool to facilitate the implementation of organisational values.

Thirdly, the values study can be perceived as part of sustainable workplace research, with an initial emphasis on the social aspects of sustainability, which focused on strengthen employee participation and enhance workplace cohesion.

As the three dimensions of sustainable development are closely interrelated, the development in social sustainability will consequently take effect in environmental and economic development of the workplaces. It is argued that only when a set of collective organisational values are articulated, i.e., the majority members of the organisation hold similar beliefs on what are important in their working life, can organisational strategies and related tools (e.g. the sustainable workplace framework) be utilised to satisfy these needs.

In a broader sense, the theories of sustainability support the view that all the elements of sustainability are rooted in values. Human beings live in a world of limited resources in terms of time, energy, money, attention, etc., and are therefore forced to choose, consciously or unconsciously, between various choices. Almost all sustainability related choices involve some explicit or implicit system of weighting or prioritising different values, ranging from the individual choice of which vehicle to buy, to collective choices about whether or how to reduce greenhouse gas emissions (Leiserowitz et al., 2006). Therefore, most advocates of sustainable development recognise that for it to be realised would require changes in human values, attitudes and behaviours (Mabogunje, 2004). GSA (n. d.) pointed out that sustainability does not necessarily require a loss in quality of life, but does require a change in mind-set, and potentially a change in values toward less consumptive lifestyles. Lund (n. d.) argues that SD should be created through value-based changes that are difficult to obtain through changes in regulation and through the use of experts alone, because it is primarily about attitudes to work and life in general. Similarly, Raskin et al (2002) claim that market-led adaptations and government-led policy adjustments are not enough to enable transition towards sustainability, a values-led shift would open powerful additional opportunities for mending the global environment and forging more harmonious social conditions. In addition, Enquist et al. (2007) conducted a case study in the Swedish furniture producer, IKEA, and concluded that by effectively

communicating organisational values to the employees and the wider public, values-based thinking can drive SD of businesses, making them more successful than others.

However, values are rarely explicitly discussed, which often leads to great misunderstanding and intensified conflict. Hence it is argued that the achievement of long-term sustainability goals will require 'an open, inclusive, and continuing' dialogue about what 'the good life' should look like, how to live it, and the values, attitudes, and behaviours, both individual and collective, that will support it (Leiserowitz et al.,2006). The phase 1 of the research is our attempt to open such a communication channel in a live business setting, which play a critical role in understanding what 'the good working life' should mean for the working people at workplaces, help individuals and their organisation improve their behaviours to achieve ultimate sustainability goals at the workplace. Therefore, it is considered as a critical step towards the creation of a sustainable workplace.

In summary, each of the two phases of this research has a clearly defined scope, but they are also interrelated. Phase 1 of the research facilitated the establishment of a set of organisational values, which forms the foundation for the creation of sustainable workplaces. Phase 2 refined the concept of sustainable workplace, and proposed a conceptual framework to govern and monitor the SD at workplaces. The framework addresses the organisational needs identified through phase 1 of the research, and can be used as a tool to embed core organisational values into work practices. The research as a whole contributes to organisational development theory and practice, in terms of how to articulate collective organisational values, and upon which to establish a sustainable workplace framework, with the aim to improve organisational performance as well as employees' quality of life at work.

6 FINDINGS AND IMPLICATIONS

6.1 INTRODUCTION

This chapter concludes the research and discusses its impact on the industrial sponsor and the implications for the wider industry. Recommendations and suggestions for future research are also offered. Finally, the chapter provides a critical evaluation of the research and summarises the overall research.

6.2 CONCLUSIONS

The aim of this research study, as has been stated before, was to identify and test an effective way of developing the potentially powerful connection between the values of a company and its employees, and explore ways to embed the collective organisational values into business practice to create a more sustainable workplace.

In order to achieve this aim, eight specific objectives were defined:

Phase one: Organisational values and behaviour study

Overall objective: To identify and test ways in which the collective organisational values can be developed.

Objective 1: To reveal and understand employees' personal values.

Objective 2: To identify organisational shared values.

Objective 3: To identify core values related behaviours and implementation mechanisms.

Objective 4: To develop a set of collective organisational values and behaviours statements for the sponsoring company.

Phase two: Sustainable workplace research

Overall objective: To explore ways to embed the collective organisational values into business practice to create a more sustainable workplace.

Objective 5: To refine the concept of a sustainable workplace

Objective 6: To summarise the state-of-the-art in sustainable workplace development, and identify main aspects and gaps in the available practical guidance.

Objective 7: To establish a sustainable workplace framework for organisations to govern and monitor workplace sustainable development.

Objective 8: To develop bespoke indicators for the sponsoring company based on the collective organisational values, and hence facilitating the effective management of its workplace sustainable development.

The research achieved all the above objectives, to the extent detailed in the foregoing chapters of the thesis. The research has made several contributions as listed below:

- Highlighted the importance of linking employees' personal values to the organisational values.
- Developed a unique mixed methods approach to establish such linkage therefore develop collective organisational values and behavioural statements
- Identified ways to embed the 'sustainability' values into workplace development through the establishment of a sustainable workplace framework; the following contributions were made within this process:
 - Investigated the concept of sustainable development and furthermore, defined the concept of sustainable workplace

- Highlighted the gaps among the available practical guidance
- Established a sustainable workplace framework
- Identified a set of indicators based on key organisational issues of the sponsoring company

From these main contributions it can be seen that the primary objectives of the project were satisfied. The first phase of the research developed a mixed methods approach for organisations to establish collective organisational values and behaviours (objective 1~4), and the second phase involved redefining the concept of sustainable workplace, identifying the gaps in the existing practical guidance, and develop a framework to guide and govern the SD at workplace (objective 5~8). This thesis together with the supporting documents in the Appendices provide evidence to suggest the achievement of research aim and objectives.

Overall, it is argued that the sustainable workplace is a multidimensional concept which requires holistic thinking. As discussed in section 5.4, the identification of core organisational values and behaviours is a critical step toward the development of a sustainable workplace. Based on the literature review and further research carried out in this project, it is evident that employees' personal values must be made clear before they can be communicated and linked into collective organisational values. The creation of an organisational values statement is a process which can help employees explore the real meaning of their values at work, invite people's thoughts, and form a values framework within the organisation. By discussing the behavioural issues related to these core values, and identify ways to embed these values into workplace development, the meanings to these values become tangible and measurable.

The shaping of collective organisational values should be based on a clear understanding and communication of employees' personal values; Schwartz's

circumplex model of values and associated survey instrument are helpful framing devices to initiate and structure such a debate. Compared to the usual management-imposed approach, a bottom-up process can make organisational values explicit in a more understandable and useful way, and improve values congruence between individuals and host organisations. The mixed methods approach derived from Schwartz's values theory could facilitate the alignment of individual and organisational values and hence be an effective way for shared values to emerge, evolve and enter into the corporate conscience.

Although the process of establishing collective organisational values is an effective way to identify a rally point for all employees and reveal highly important issues in organisational management, for a workplace to develop in a sustainable manner, these issues must be addressed and measured, to create an avenue for the collective organisational values to enter into the corporate conscience and be sustained in the long term. Phase 2 of the research aimed to facilitate the integration of these core values into workplace development, with a special emphasis on the 'sustainability' values. The research reviewed sources of practical guidance and offers direction for refining the concept of sustainable workplaces. It is argued that creating sustainable workplaces perhaps calls for a holistic business philosophy, which, by embedding sustainable development principles into all aspects of workplace development, aims to deliver environmental, social and economic benefits over the long term, and facilitates the creation of a positive and sustainable society.

The sustainable workplace framework developed in phase 2 is based on the concept of 'triple bottom line' (Elkington, 1997) and breaks down the three dimensions of sustainability into a set of workplace-related factors. Bespoke indicators were identified for the sponsoring company to address and measure the important organisational issues identified in phase 1 of the research. The framework helps the organisation to govern its workplace management and

ensure no aspects were overlooked. It joins the key workplace SD related aspects together, which facilitates a way of holistic thinking. The indicators developed could facilitate progress monitoring within the workplace. The framework complements the existing workplace SD guidance, promotes the awareness of sustainability in the workplace, and could help organisations to identify gaps in their workplace sustainability implementation efforts and focus attention on areas for improvements.

The research concludes that to develop an organisation in a sustainable manner, a set of collective organisational values must be articulated, which will serve as guiding principles of workplace behaviours and practices, and therefore dictate workplace performance. The shaping of collective organisational values should be based on a clear understanding and communication of employees' personal values, and that Schwartz's circumplex model of human values and associated survey instrument are helpful neutral framing devices to initiate and structure such a debate. As all the elements of sustainability are rooted in values, the identification of the collective organisational values could be considered as a critical step towards the development of sustainable workplaces. Furthermore, the research highlighted that the sustainable workplace is a multidimensional concept which requires holistic thinking. The conceptual framework developed in this research joins together the key aspects/criteria of sustainable workplaces, with the aim to balance the workplace environmental, social and economic performance. By linking the organisational values and related key business issues to workplace sustainable development criteria, the development towards sustainable workplaces could consequently enhance organisational values, therefore improve organisational performance as well as employees' quality of life at work.

6.3 IMPACT ON THE SPONSOR

The Engineering Doctorate (EngD) programme is more industrially focused than the traditional academic PhD, with an aim to innovate and implement new ideas in practice. In this research project, the majority of work was carried out in the sponsoring company to address the needs of the business. The research helped identify and analyse area that require improvement; subsequently, mechanisms for improvement were tested and successfully implemented. It also revealed areas for further development. The research has had positive impacts on the sponsoring company as discussed in this section.

First, a set of organisational values and behaviour statements were established collectively for the organisation. Such statements were not available in the sponsoring organisation before this research; this omission had caused many conflicts, confusion and difficulties in business operation and decision making. The statements established through this research were rooted in the employees' personal values and reflect the shared values of every member of the organisation. They are therefore well accepted by the majority of staff in the company. This has facilitated the company's movement towards VBM, which will be able to bring many benefits that VBM has to offer. Effort has already been made to incorporating values into criteria for interviewing, selection, promotion and project tendering to reinforce the desired behaviour and enhance the company's brand image.

Secondly, the organisational wide values survey and six follow-up workshops involved more than 90 percent of the employees, and significantly improving the communication among individuals and between management and staff. A values dialogue was activated and many important management issues were identified through the bottom-up process. These issues were discussed extensively within the offices and in the workshops, and negotiated with senior management for the final decision-making process. Employees' opinions were valued and led to

changes in the organisation's daily operation. For example, a Personal Development Review (PDR) system was established which offers biannual review for each employee to summarise their personal development and propose a training and development plan for the next six months. A monthly online forum named 'Euan's Forum' was also established to keep the communication channel open between Group CEO and staff. Run by the Group CEO of the company, the forum is a place where people raise issues and ask questions about the business operation, and where the Group CEO given instant responses. Furthermore, an Intranet Values page has been established and is currently under testing. Once launched this will provide a space for people to discuss all values and behaviour related issues and make suggestions for behaviour improvement. In addition, an employee bonus scheme was developed and implemented which successfully boosted staff morale.

Thirdly, although a sustainable workplace is highly desired by the employees, until the framework was introduced, no tool was available within Currie & Brown to govern and measure workplace sustainable development. Some efforts were made on an individual/office basis without holistic thinking and systematic management. The sustainable workplace framework offers a timely response to these needs; it is a holistic strategic management and self-assessment tool for sustainable workplace management. Having the framework and a set of indicators in place will not only raise the awareness of sustainability and improve the strategic management within the workplace, but also ensure continuous improvement in the long term. The fact that the indicators were developed based on the importance of key business issues means that it addresses current business needs. While the framework itself is fairly generic in its nature, the indicators are designed specifically for the organisation and could be updated on a regular basis. As such, they offer a space for future development and evolvement. Over the years, the framework and the organisational performance

against each indicator can provide tangible and traceable information on workplace performance towards sustainability. In June 2008, a CSR group was set up within the company. It consists of office representatives and holds regular meetings to plan and implement sustainability-oriented actions within the workplace. One of the objectives of this group is to undertake and review the sustainable workplace related action within the workplace. The framework and related indicators served as a useful tool to help achieve this objective.

6.4 IMPLICATIONS FOR THE WIDER INDUSTRY

The research was conducted in a live business environment. Not only has it made a contribution to the sponsoring company, it also has the potential to be implemented in other companies in the UK construction industry and elsewhere.

First, the experience of shaping the collective organisational values based on consultation with, and engagement of, employees was a positive one. The structured method applied in this research can facilitate the alignment of individual and organisational values, and hence be used by other companies as an effective way to identify the collective organisational values and explore the related behavioural issues.

Secondly, although the single company nature of the study precludes any conclusions about the expansion of the findings to other companies within the construction industry, it could be hypothesised that a UK company providing similar professional services might share similar espoused values priorities, but perhaps have quite a different set of 'lived values', i.e. behaviours.

Thirdly, the sustainable workplace framework developed in this research provides a useful instrument for effective workplace management. Organisations could use this framework to govern and assess their workplace performance, and more

importantly, develop their own indicators according to their organisational values and thereby satisfy their specific workplace requirements.

6.5 RECOMMENDATIONS AND FURTHER WORK

From phase 1 of the research, it has become clear that special attention should be given to the following key issues:

1) Value-Sharing Environment

Although identifying core values is an important factor in people's lives as well as business management, there is often a lack of the right value-sharing environment. People need to be taught how to listen and be heard, and need to feel that the environment allows and nurtures participation. This environment can be created by continuous encouragement, confidentiality assurance and the promotion of a values dialogue among individuals.

2) Leadership commitment

The development and promotion of a value-oriented culture has to be driven from the top. Even though this study was a bottom-up process, endorsement and commitment was given throughout by the senior management. This is essential because without a champion at the senior management level, it will be difficult to initiate the whole process and overcome the natural scepticism of such an initiative. It is also clear that involving senior management can provide added understanding and ownership to the process, which enabled them to appreciate and support the whole process. On the other hand, senior management must understand that they should not engage in such an endeavour unless they are committed to building on the results; lack of follow-through after raising expectations could be more damaging than not starting in the first place.

3) People-related issues

People's unwillingness to share their opinions, as well as time and resource constraints, may result in resistance from employees. Therefore, it is important to explain in advance the purpose of the initiative, the potential benefits, and issue them with clear instructions. People's ideas need to be treated seriously, rapid meaningful feedback should be provided, and contributions should be rewarded.

4) Values communication programme

A communication plan is essential to assist the process of values identification and subsequent behavioural change. It should involve all of the organisation's stakeholders, especially employees, highlighting the importance of values to them and to the organisation, and explain ways to assimilate the values into day-to-day work. More importantly, it should reassure employees that they are involved in a long-term dialogue, not a quick fix or superficial exercise.

5) Values diversity

Identifying organisational shared values is by no means aimed at excluding values diversity. On the contrary, values diversity should be encouraged and respected within a collectivistic culture, enabling a heterogeneous workforce to work harmoniously toward their common goals, maximising the contribution of each member, and ensuring fair treatment for all irrespective of background. The study made the divergence of values explicit and facilitated mutual understanding. Care must be taken to prevent over emphasis on shared values limiting individual creativity and variety of priorities and perspectives or restricting the entry of different cultural groups into the organisation.

The approach adopted in this study could be useful to Currie & Brown in articulating collective organisational values and behaviours. Nevertheless, the values statements will be of limited use if the organisation fails to put them into practice. Further research is required to understand how to realise these values and behaviours and if necessary implement organisational change. One avenue

that might be fruitful is to evaluate current business practices to reveal the gap between values and behaviours, i.e. 'words' and 'deeds'. Action research and further workshops would be needed to reveal this gap and then identify mechanisms for improvement. It might also be worthwhile involving the organisation's clients, suppliers or partnering organisations into the study to explore how values affect inter-organisational collaboration and corporation.

Furthermore, the approach developed in this research has the potential to be used in other organisations. The data obtained from various organisations could facilitate cross organisational comparison, as well as help identify the prevailing values in a specific industry.

Based on the research into the sustainable workplace, four overarching observations and recommendations can be made which are discussed below.

1) The need for a holistic and balanced perspective

Creating sustainable workplaces means balancing various aims, and the following three issues could be relevant.

a) Balancing three dimensions of sustainability

Sustainable development goes beyond 'good' environmental practice with a more holistic approach that looks toward improving environmental, economic and social performance. As discussed above, the guidance available is unbalanced and fragmented. The primary focus is on technical and natural systems while others are largely overlooked. As such, there is a need to adopt a multiple perspective on the impact of decisions and actions in the workplace, i.e. evaluate the environmental, social and economic impacts simultaneously, which also requires a good understanding of the interrelationships between the three.

b) Balancing short term and long term views

Similarly, creating sustainable workplaces should not simply be a short-sighted or isolated response to a given challenge that the workplace faces, such as reducing the cost of energy or workplace accidents. A long-term perspective should be taken, and hence should link to other activities within the company and its interaction with the society, e.g. establish long-term partnership with other companies; research and development; suppliers management. More importantly, every decision should be made with an eye to the greatest long-term benefits. Nevertheless, it is also dangerous to overlook the short-term impact of each action. Without short-term tangible outcomes, it is difficult to engage and empower people to commit to long-term changes. Hence both short term and long-term views should be balanced.

c) Balancing efficiency, effectiveness and expression

Sustainability is currently very efficiency-focused. People are attempting to slow down the damage caused by excessive resource use, hence much of the guidance offers detailed advice on energy efficiency and cost savings. Whilst this is a good starting point toward sustainability, it is by no means the only aspect.

According to the Commission for Architecture & the Built Environment (CABE) and BCO (2005), the performance of the workplace environment could be measured by three business objectives, namely efficiency, effectiveness and expression. Efficiency involves getting the most from the real estate and driving down occupancy cost; increasing effectiveness in the workplace means using space in ways that improve the quality of work being done there, or getting the most from people; expression is concerned with getting the most from the brand of the organisation and with communicating messages to both the inhabitants of the building and those who visit and interact with it. They argue that the potential impact on business performance of measuring 'effectiveness' and 'expression' is far greater than any cost savings. Hence in the process of developing sustainable

workplace, the 3E's should all be considered and measured, thus making sure that the needs for improvement in the three areas are addressed.

2) The requirement for a genuine partnership

Creating sustainable workplaces is a task which requires a genuine partnership. Joint employee-employer action is the key to creating a sustainable workplace. While the commitments and leadership from the employer pave the way towards the sustainable workplace, the best way to ensure the adoption of sustainable development is to educate and involve employees (TUSDAC, 2005). As such, everyone in the workplace should make real strides in delivering a more sustainable workplace. Secondly, sustainable development requires the integration of various stakeholders' needs with the company's business goals and the work itself. These stakeholders include primary stakeholders, (e.g. customers, shareholders, employees, suppliers and regulators), and secondary stakeholders, (e.g. academic institutions, NGOs, neighbours and social activists (Freeman, 1984). Individuals need to learn how to participate in partnership with the others in a mutually beneficial way of relationship building. This means engaging in a continuous, intentional process of understanding how the workplace can benefit both people and the organisation, and how all can engage in an ongoing, healthy, evolving process.

3) The dynamic nature of the sustainable workplace

The term 'Sustainable Workplace' does not signify a permanent state or a static condition. Reaching and maintaining sustainability is a continuous process of continuous re-examination and relearning. According to FKC and LO (2004), any SD within the workplace should come from moving in the right direction and not in achieving a certain goal. Each workplace must establish its sustainable workplace based on the challenges and opportunities it faces, and take a reflective view of such development as an evolution, rather than a revolution.

4) The importance of values-based behavioural change

Sustainability does not necessarily require a loss in quality of life, but does require a change in mind-set, and potentially a change in values toward less consumptive lifestyles (GSA, n. d.). Lund (n. d.) argues that SD should be created through value-based changes that are difficult to obtain through changes in regulation and through the use of experts alone, because it is primarily about attitudes to work and life in general. However, it is hard to change ingrained habits - this needs patience and persuasion. Organisations should adopt a values-based management approach, focus on communication, and create visible results.

Therefore, the adoption of this framework has to be well planned and all the key enabling factors – environmental, social and economic aspects – must be geared to ensuring beneficial outcomes. The method and framework developed as part of this study should facilitate better understanding and enable organisations to develop their workplace in a sustainable manner. However, further work is needed to:

- a. Review and update the key aspects and related indicators for each dimension.

Whilst the indicators identified address the organisation's current needs, the priorities of these needs may change along with changes of the company and the business environment. Therefore, the key aspects and related indicators must be reviewed and where necessary updated on a regular basis.

- b. Examine the interrelationships and interaction between the three dimensions.
- c. Most workplace sustainability related actions will involve some improvements in some aspects at the expense of sectorally, spatially or temporally adverse impacts elsewhere. Therefore further work will need to be carried out to identify the mutual influences between the three dimensions of SD and explore the integration of these key workplace aspects. Identify ways to

assess risks and opportunities in environmental, social and economic development of workplaces (and hence evaluate both positive and negative consequences of workplace activity, in a way that reflects the costs and benefits for human and ecological systems, in monetary and non-monetary terms).

6.6 CRITICAL EVALUATION OF THE RESEARCH

6.6.1 Critical evaluation of Phase 1

There are limitations to be considered in evaluating phase 1 of this research. Firstly, the SVS instrument assesses how important these values are as 'guiding principles of one's life' rather than desirable end states or ideal behaviours. This can help eliminate the chance of situational variables having a strong impact on the respondents (Dahl, 2004). However, it does open the argument that the mostly positive-sounding value categories could create bias because respondents may be inclined to choose a more utopian answer not reflected in their actual behaviours. The anchoring of the response scale and the confidentiality of the questions would mitigate against this, but further consideration of possible biases is necessary.

Secondly, although the SVS is a widely validated tool and can yield meaningful data that are otherwise very difficult to collect, it should not be used in isolation. Values have cognitive, affective and behavioural features (Allport, 1961; Rokeach, 1973). Schwartz (n. d.) claims that behaviour entails a trade-off between competing values. Almost any behaviour has positive implications for expressing, upholding, or attaining some values, but negative implications for the values across the structural circle in opposing positions. Furthermore, people's opinions towards values do not necessarily reflect their espoused values at work. Therefore, potential problems exist when the SVS treats each of the values as

stable categories regardless of the social context. Triangulation through other devices, such as the workshops, can help reduce the likelihood, but a better way would be observing values in action and comparing these with espoused values, which would require a more ethnographic approach beyond the scope of this study.

Thirdly, whilst the research provided a way to identify organisational shared values, it is important to note that strongly shared organisational values may not always be a positive thing. Kotter and Heskett's (1992) study of 207 US firms found that an organisation's strong values can drive either high or low performance, depending on the ability to align with the market and adapt strategies and practices accordingly. If the members of the organisation share the view that certain values are less important (e.g. unity with nature), there may be dysfunctional implications for group practices, e.g. ignoring the negative impact on the environment of their business practice. Furthermore, the sharing of values may sometimes introduce biases by encouraging a focus on certain personal needs and priorities or socially desirable preferences at the expense of others. Mullen et al. (1994) argue that the more cohesive the group, the easier it might be for the individual to become 'lost in the crowd' and thereby cease to engage in self-regulated attempts to match to behavioural standards, resulting in more pressure to conform to group norms and suffer from 'group think' (Langfred, 1998). In addition, Tosi et al. (2000) argue that the cohesive groups may become very inward-facing and tend to overvalue their own behaviour and accomplishment and to undermine outside groups. All of this may impair effective decision-making and problem-solving. These negative impacts of shared values in turn highlight the importance of developing and understanding organisational values in an appropriate manner, as well as guiding, monitoring and re-evaluating them on a regular basis, to make sure they address the current needs of the organisation and the society in which it is situated.

A further observation is that the single company nature of the study precludes any conclusions about the expansion of the findings to the broader industry. In fact the intention of this study was to establish the link between personal and organisational values to enable employees to work in the same direction, rather than generalise some core values that employees need to believe. However it is hypothesised that a UK company providing similar professional services might share similar espoused values priorities but have quite a different set of 'lived values', i.e. behaviours.

6.6.2 Critical evaluation of Phase 2

The research into sustainable workplaces is still an emerging area, the guidance offered in the existing literature is limited, and there are even fewer practices to follow. This restricts the research outcomes that can be produced.

Meanwhile, as many other qualitative research methods, this research is subjective in nature, and researcher's bias is unavoidable. By using general SD model in the directed qualitative content analysis, it could lead to some inherent limitations in that the researcher approach the data with an informed but bias perception.

Whilst the indicators identified address the organisation's current needs, the priorities of these needs may change along with the changes of the company and the business environment. Therefore, they are not permanent and are subject to change.

Moreover, because most workplace sustainability related actions will involve some improvements in some aspects at the expense of sectorally, spatially or temporally adverse impacts elsewhere, it is critical to identify the mutual influences between the three dimensions of SD and explore the integration of these key workplace aspects which is beyond the scope of this research.

The sustainable workplace framework established is an attempt to fill the gap in the existing knowledge. Unfortunately, the resources provided for this project was limited which does not allow further work in terms of applying/testing the framework in a live business environment. Therefore, its practical value is yet to be found in the future practices.

6.7 SUMMARY

In recent years, the nature and needs of organisations have changed dramatically, challenging them to rethinking how they organise themselves and accomplish their goals in a sustainable manner. This is an important, but not easy, task. The research presented in this thesis contributes to organisational development theory and practice, in terms of how to articulate collective organisational values, and establish a sustainable workplace framework to govern and improve organisational performance, therefore enhance the organisational values. With the support from Currie & Brown and Loughborough University, the research has achieved the proposed aim and objectives. It has made positive impacts on the sponsoring company, and has the potential to be implemented in the wider industry.

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APPENDICES

- Appendix 1:** Paper 1 (Refereed conference)
- Appendix 2:** paper 2 (Journal, published)
- Appendix 3:** paper 3 (Journal, published)
- Appendix 4:** Paper 4 (Ready to submit)
- Appendix 5:** Article 'building on values'
- Appendix 6:** Case study in VALiD brochure
- Appendix 7:** Values questionnaire
- Appendix 8:** Summary of mechanisms analysis
- Appendix 9:** Sustainable workplace framework and key indicators for industrial sponsor

APPENDIX 1: PAPER ONE (REFEREED CONFERENCE)

Zhang, X., Austin, S. A. and Glass, J. (2006) Linking individual and organisational values: a case study in UK construction. In: Boyd, D (ed) *Procs 22nd Annual ARCOM Conference*, 4-6 Sep 2006, Birmingham, UK, Association of Researchers in Construction Management, pp. 833-842.

LINKING INDIVIDUAL AND ORGANISATIONAL VALUES: A CASE STUDY IN UK CONSTRUCTION

Abstract Values hold a prominent place in both business ethics and organisational theories, and there is a detectable shift from management by instructions and objectives to management by values (Dolan and Garcia, 2002). Some organisations now devote significant energy to integrating values and beliefs into their business practices, which requires a clear and thorough understanding of the organisational values in the first place. Many believe that organisations should have values that both reflect the collective values of all employees and align with individual values (Sawhney, 2002; Peat, 2003; Jaffe and Scott, 1998). However, there persists considerable confusion about how organisational values should be developed. While many organisations have values statements, most were generated by those in a leadership position, which often fail to relate to the employees' personal values. This paper presents a values study conducted in an organisation in the UK construction industry. By utilising a questionnaire survey instrument developed upon the Schwartz's theoretical framework of human values (Schwartz, 1992), employees' values profiles were collected and analysed. A follow-up workshop facilitated the identification and sharing of the common values, established the linkage between individual and organisational values, and as a result, a set of values statements were developed by the employees themselves. This bottom up approach made the organisational values explicit in an understandable and useful way, and improved the congruence between individuals and the organisation.

Keywords Individual, Values, Values Statements, and Organisation.

Today's business environment is becoming more and more complex, demanding and unpredictable. In the interests of corporate survival and differentiation, many organisations are searching for better ways to manage and develop their businesses.

Over recent years values have been holding a prominent place in both business ethics and organisational theories, and there is a detectable shift from management by instructions (MBI) and objectives (MBO) to management by values (MBV) (Dolan and Garcia, 2002). MBV is also referred by others as Values Based Management (VBM), Values Based Culture (VBC), or Values Based Leadership (VBL). Pruzan (1998) pointed out that there is an on-going shift from a traditional efficiency-and-control perspective to a values based perspective on management. Meanwhile, Vogelsang (1998) argued that organisations have instituted decentralised structures that rely less on control by a central office and more on a shared understanding of their core purpose and core values. Furthermore, Pasternack and Viscio (1998) claimed that VBL is a must in modern flat organisations characterised by transparency and easy availability of information.

In practical business terms, the aim of VBM is to create conditions under which all employees can perform independently and effectively toward a single objective (O'Toole, 1996). Dolan and Garcia (2002) claimed that MBV has a triple purpose: a) Simplifying the organisational complexity created by the ever-increasing need to adapt to change at all levels in the company; b) Guiding strategic vision towards the future destination of the company; and c) Securing commitment of every employee to deliver a high quality performance in the day-to-day work.

In response to this shift, some organisations now devote significant energy to integrating values and beliefs into their business practices, such as General Electric, Microsoft, Levi Strauss, AT&T, and Nordstrom. They have all achieved enduring success. By researching many successful companies, Collings (1996)

pointed out that these companies all have core values and a core purpose that remain fixed while their business strategies and practices endlessly adapt to a changing world. The dynamic of preserving the core while stimulating progress made them become elite institutions able to renew themselves and achieve superior long-term performance.

PERSONAL VALUES

Values are the deepest and most powerful motivators of personal action. They represent an organizing principle for our lives, as well as for an organisation. Rokeach (1973) defines a personal value as "an enduring organisation of beliefs," that are "general plans employed to resolve conflicts and to make decisions." England (1967) considered a personal value system as a relatively permanent perceptual framework that shapes and influences the general nature of an individual's behaviour. He argued that values are similar to attitudes, but are more ingrained, permanent, and stable in nature. Based on many common definitions, Argandoña (2003) defined values in a broad sense as "central desires or beliefs regarding final states or desirable conducts that transcend specific situations, guide the choice and evaluation of our decisions and, therefore, of our conducts, becoming an integral part of our way of being and acting to the point of shaping our character."

According to Schwartz (1992), there are five formal features of values recurrently mentioned in the literature: Values are concepts or beliefs; they pertain to desirable end states or behaviours; they transcend specific situations; they guide selection or evaluation of behaviour and events, and they are ordered by relative importance. Further, Meyer (1998) discussed that values "can provide a context that facilitates and enables local, independent action."

ORGANISATIONAL VALUES

An organisation's values are the criteria by which employees make decisions about priorities (Christensen, 2001). They are often defined as the shared values of all employees. These shared values are relatively stable, enduring and interact with a company's people and organisational structure to produce patterns of behaviour (Chatman, 1991).

In organisations' unending quest for value, it is not uncommon that some of them complained they have to compromise their organisational values. Nevertheless, managers and researchers around the world are becoming increasingly aware that it is the organisational values that drive the business. Haas and Howard (1990) stated that a company's values are crucial to its competitive success. Edgeman (1998) pointed out that competitive demands call for profoundly conscious organisations where there arises only one mind. He claimed that nurturing this "one Mind" or "Unity of Purpose" relies on clear, consistent communication of a shared but not imposed core value set. Furthermore, Sawhney (2002) claimed that values should form the foundation upon which the edifice of value creation must rest. Echoing these points, Peat (2003) argued that companies which are most successful over the long term are those which incorporate their cultural values at the core of their everyday business operations, and those who emphasised on both the business values that underpin a company's culture and the business value position offered to customers and stakeholders.

Companies that establish and communicate positive corporate values can experience a significant reduction in counterproductive behaviour. On the other hand, companies that concentrate on the physical aspect of their being, and ignore their emotional, mental and spiritual needs can hardly survive (Geus and Senge, 1997)

Traditionally the organisational values are established by the founders and compounded further by the personalities and transforming activities of their inheritors. (Anthony, 1994; Collins and Porras, 1997). More recently, Dearlove and Coomber (1999) pointed out that the key to define organisational values is to "capture what is authentically believed, not what other companies select as their values or what the outside world thinks should be the values".

LINKING INDIVIDUAL AND ORGANISATIONAL VALUES

Values are fundamental and enduring aspects of both people and organisations. Because values are common to both organisational culture and individual personality, they serve as a linkage between individuals and their organisation.

Organisations do not possess values apart from the values of their members. An organisational values system (or culture) is said to exist when 1) individuals know that group support for a given belief exists; 2) a majority of active members are in agreement; and 3) the core values of an organisation are intensely held throughout the organisation (Chatman, 1991).

In many organisations, managers and employees are often unaware of the values they possess and also tend to misjudge the values of others. Understanding individual and organisational values can help managers select employees whose values and beliefs match those of the organisation and configure ways to strengthen that match. Thus the research of linking individual and organisational values may provide legitimate insight into improving fit and retaining employees over the long term. Particularly in the construction industry, which is known for high levels of employee turnover, this information could be invaluable.

Many believe that organisations should have values that both reflect the collective values of all employees and align with individual values (Sawhney, 2002; Peat, 2003; Jaffe and Scott, 1998). However, there persists considerable confusion

about how organisational values should be developed. While many organisations have values statements, most have been generated by those in a leadership position, and they often fail to relate to the employees' personal values. As a result, these lofty values are difficult to enact and sustain.

CASE STUDY

Identifying a company's values should be the essential first step to a value-based management approach. The case study discussed below is an attempt to articulate the individual and organisational values, and establish the linkage between the two in a systematic way.

Background

The case study presented in this paper is a pilot study conducted in a professional construction management services organisation. In 2004, the time when this study was initiated, the company reached a critical point in its evolution. Following three years of incorporation from a partnership company to private limited company and a period of consolidation, the organisation faced great challenges as well as opportunities to set a vision for its future. This calls for clear understanding of the organisational core values, upon which the business strategy can be developed. However, although the company has formal vision and mission statements, they were compiled by top management, and there was little emphasis on organisational and human values.

Methodology

The study adopted a bottom-up approach which focuses on characterising the organisation's values by surveying the values of its members.

In the domain of organisational values research, many researchers prefer qualitative research instruments, for it helps researchers understand the organisational values and cultures as artefacts and stories (Smircich, 1983).

However, methods such as observation and interviews may encourage employees to behave differently (usually better) and respond to interview questions in a way they perceive to be socially desirable. Quantitative methods, on the other hand, offer advantages for cross-sectional organisational research and large-scale studies (Cooke and Rousseau, 1988). They are replicable in different units and enable the researchers to compare data across studies. Yet it may not enable the researcher to capture the rich details behind the data. With regard to these, both quantitative and qualitative research methodologies, particularly questionnaire surveys and workshop discussions were used in this research, with the attempt to plot a true picture of the office's values profile.

a) Questionnaire Survey

The purpose of the questionnaire survey was to capture employees' personal values and link them with the organisation's values. Case study scholars, such as Yin (2003), emphasise the importance of using a theoretical framework to guide the study. Therefore, this case study examined the individual and organisational values through the lens of the well-established values framework developed by Schwartz in the 1990s (Schwartz, 1992). The questionnaire measures individuals' opinions of the relative importance of 56 generic values. It adopted a normative format (Chatman, 1991). Respondents were asked to use a scale from -1 to 7 to rate all value items according to their importance level in their working life. Thus, values are assessed independently of one another, which makes it possible to capture absolute—interpretable and meaningful—differences between scores.

The received questionnaire responses were aggregated and analysed within Schwartz's ten value categories, namely universalism, others-oriented, tradition, conformity, security, power, achievement, hedonism, stimulating, self direction, plus one "not categorised" section, as show in Figure 1.

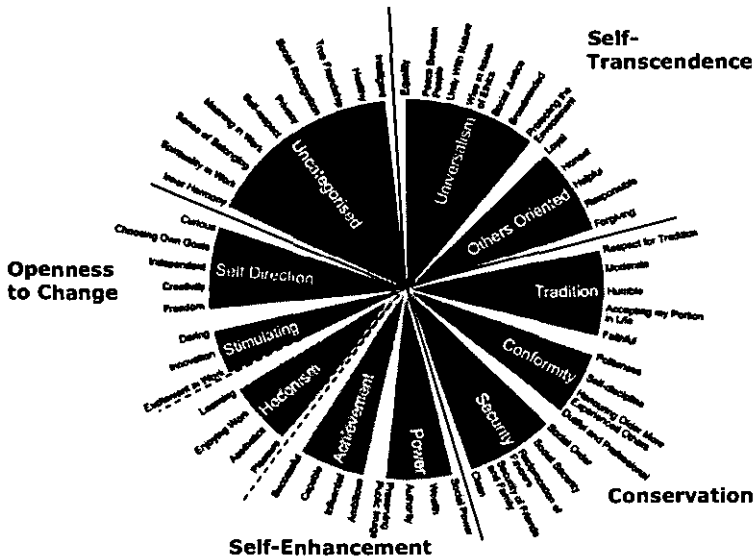


Figure 1 Structural relation among the 10 values categories and the four higher order values groups. (After VALID, 2005)

According to Schwartz's values classification theory, the chart has a circular, two-dimensional structure. The 10 categories noted above can be grouped into four higher order groups, which demonstrate two values dimensions. The first dimension 'openness to change vs. conservation' contrasts values emphasising independent thought and action and favouring change to those stressing submissive self-restriction, preservation of traditional practices, protection and stability. The second dimension 'self-transcendence vs. self- enhancement' compares values emphasising acceptance of others as equals and concern for their welfare to those insisting on the pursuit of one' own relative success and dominance over others. Hedonism is related both to openness to change and to self-enhancement.

The values of each individual respondent and those of their office were plotted in a radar diagram (Figure 2). This allowed people to compare their own value scores against the organisational average scores.

Furthermore, the number of people who perceived each value item as of high, medium and low importance was calculated, from which the alignment and strength of value perceptions between these individuals was revealed. The value items were then prioritised as shown in Table 1.

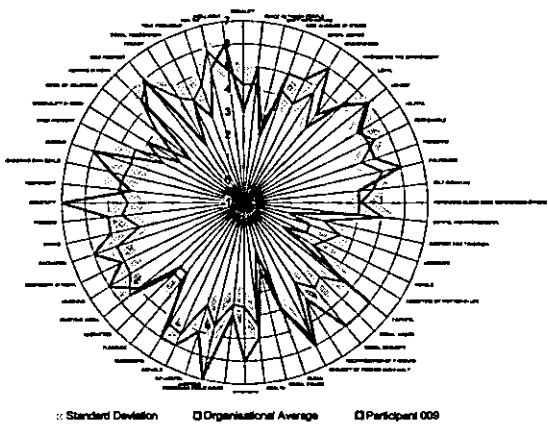


Figure 2 Example of an individual's values chart

Table 1 The 10 very/supremely Important values viewed by the Individuals

Category	Value statement	Very important or supremely important (5,6,7)	Organisational Standard Deviation of Individual Values Scores
1	CAPABLE	23	0.650641
2	HONEST	23	0.943398
3	RESPONSIBLE	22	0.852447
4	MEANING IN WORK	22	0.860233
5	SELF-RESPECT	22	0.912871
6	HEALTHY	22	1.106044
7	ENJOYING WORK	20	1.084743
8	POLITENESS	19	0.957427
9	LOYAL	19	1.040833
10	SUCCESSFUL	19	1.144552

Meanwhile, differences between the genders, professional disciplines and management levels, etc. were also examined by analysing the responses from different sub-groups.

b) Workshop

Further to the questionnaire survey, a half-day workshop was designed and held with the aim to create an environment for people to share their individual values with others.

Four workshop groups were formed based on people's experiences and their length of service in the organisation. The groups' value charts were then produced by plotting all the group members' value diagrams in one chart. Furthermore, an Excel spreadsheet was established to calculate the skewness of the frequency distribution of each value items within the group. This facilitated the identification of the most and least important values for each group.

In the workshop, two questions were discussed: 1) Why are these values of high and low importance for your work in the organisation? 2) How are the peaks (important values) reflected in your work practices?

Each group came up with a set of core values that they felt should be adopted by the organisation. There were lively debates about which ones were most important for their work and were essential to continued high performance. Each group then shared its proposed values with the others. Group discussions helped communicate and justify the most important values for the group, express them in their own words and identify their link to company practices. The most important values and their link to the work practices were collaboratively plotted onto a blank values chart to build an overall organisational values profile.

Results

In the study, an electronic version of the Values Questionnaire was circulated to all 25 employees in one UK office of the company. With the support from the office director, a total of 25 emailed questionnaires were completed and returned, which is a 100 percent response rate. This is an ideal situation as the result can

be considered as every employee's perceptions and hence should give a representative picture of this office's values profile. As a result, 25 individual values profiles and an organisation values profile were produced. Data obtained from the questionnaire survey and workshop discussion revealed that the core values (Top 10) for that office were:

1) Capable 2) Honest 3) Responsible 4) Self Respect 5) Healthy 6) Meaning in Work 7) Successful 8) Security of Friends and Family 9) Politeness 10) Enjoying Work

Meanwhile, the least important values were identified as 1) Social power 2) Accepting my Portion in Life 3) Spirituality in Work 4) Respect for Tradition 5) Unity with Nature.

When linking these values into the work practice, several key issues were raised, such as the lack of two-way communication, the importance of teamwork, and the difficulty in maintaining work-life balance.

The data analysis provided a clear indication of the very nature of the organisation. While the survey helped to plot the big picture of the company's values profile, further detailed information was revealed by examining the values differences between various sub-groups, e.g. professional disciplines, management levels and genders, etc. The finding suggested that in this office, there were no significant differences between people from different professional disciplines; the values of the managers in the dimension of 'Self-enhancement' and 'Openness to change', on the average, are higher than that of the employees; on the other hand the employees gave higher scores to the dimension 'Self-transcendence' and 'Conservation'; further, the test revealed some differences in certain value items between female and male staff, e.g. female employees gave much higher scores to "equality", "honouring older more experienced others" and "learning", while the male staff ranked "healthy" and "daring" much higher.

Finally, the questionnaire survey results and the workshop discussion outcomes are combined together. Core values were identified and then grouped. The whole process informed the formulation of organisational values statements that describe core beliefs and attitudes. The individual values statements were presented in descending order of importance. Listed below are some of the statements produced for this office:

Professionalism *We take an active role in developing ourselves to the highest potential and strive for personal and professional excellence.*

Integrity *We value self-respect and dignity and treat all people with courtesy and respect; we are dedicated to high ethical and moral standards that include honesty, loyalty and responsibility.*

Client-focus *We make every effort to satisfy and exceed our internal and external customers' needs, and strive for long-term relationships with our clients.*

...

The statements were developed in a joint effort, therefore they were well accepted by the employees. They have already been used in the Office's recruitment advertisement with the intention of demonstrating the company's identity and attracting people who have not only suitable professional backgrounds, but also share the same values as the organisation. It is also intended to integrate these values into the appraisal system to check whether these 'words' have been transferred into 'deeds' in the daily work.

CONCLUSIONS AND RECOMMENDATIONS

In conclusion, the study helped the organisation to align its organisational values with the employees' individuals' values. With the values statements as a road map, the organisation will be able to create and sustain a competitive advantage, strengthen it day by day, therefore meeting and exceeding the current and future demands placed upon it.

The method used in this study is a simple and effective way of understanding, expressing and sharing individuals' and organisational values. The process of creating the statements (entailing reflection and self-examination) is more valuable than the words ultimately written. Exploring values helped the employees to understand their own values and the organisational-shared values. Different from the traditional top down approach to define the organisational values, this is a bottom up approach which focuses on align the organisational values with the individuals' values. Therefore, it can help the organisation to eliminate organisational bureaucracy, encourage employee involvement and embrace continuous improvement-oriented approaches throughout the organisation.

The questionnaire survey enabled the participants to become self-conscious and articulate about their own values and believes. As a useful tool, it makes the values visible, comparable and more importantly, helps reveal the strength and alignment of the values within the organisation, from which the organisational core values can be identified. Moreover, this values study opened a values dialogue among all the participants. It helps people to realise and respect the individuals' values divergence, identify their shared values within the organisation, and align organisational core values with individual values. By discussing what is valued in their work and how they believe the work should be carried out, people's values became meaningful in an organisational context. The establishment of the values statements formulated a values framework for the organisation. People can continue to refer to them to make sure they are on track. On the other hand, it also reminds people what values they do not hold, which is equally crucial.

In addition, the study helped management realise that human values form the basis of the business strategy. Strategies should be formed according to prevailing values and behaviours in the organisation. This must be clearly

identified and understood, or else it will face the difficulty in getting it through. The investigation of organisational values provided management with a platform from which to define organisational vision, mission and objectives.

From this pilot study, it was clear that special attention should be paid to the following key issues when undertaking the values study in an organisation:

1) Creation of Value-Sharing Environment

Although identifying core values is a vital factor in people's life as well as business management, it is a factor that often suffers from the lack of a value-sharing environment. People need to be taught how to be heard, and need to feel that the environment allows and nurtures participatory. This environment can be created by continuous encouragement, confidentiality assurance and the promotion of a values dialogue among individuals.

2) Need of leadership commitment

Even though the whole study is a bottom-up process, endorsement and commitment must be given from the top-level management. This is essential for successful implementation of the whole approach. Without a champion at the senior level, it will be difficult to initiate the whole process, as the result may seem to be intangible at the beginning, although people will begin to experience the benefits at the end of the study.

3) People-related issues

People's unwillingness to share their opinions, as well as time and resource constraints, may result in resistance from employees. Therefore, it is important to explain the instruction in advance, especially the purpose of the study and the potential benefits for the individuals and organisation. People's ideas need to be treated seriously and rewarded. It is also important to provide quick and meaningful feedback at the end.

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APPENDIX 2: PAPER TWO (JOURNAL, PUBLISHED)

Zhang, X., Austin, S. A., Glass, J. and Mills, G. (2008) Toward collective organisational values: A case study in UK construction. *Construction Management and Economics*, Volume 26, October 2008, pp.1009–1028, Routledge, UK.

Toward collective organisational values: A case study in UK construction

Abstract Values have held a prominent place in business ethics and organisational theories in recent years. Some organisations now aim to integrate values into their business practices, which requires a thorough understanding of the organisational values. However, whilst many believe organisational values should reflect the collective values of the staff, the majority of values statements are generated by senior management with little examination of employees' personal values. The difficulties surrounding the development of an organisation's values are exacerbated by the dearth of literature offering practical guidance. The case study presented has been conducted in a UK construction company using Schwartz's theoretical framework of human values as a starting point and framing device. Employees' values profiles were collected and analysed through an organisation-wide values survey. Follow-up workshops and post workshop activities facilitated the sharing of common values and helped staff representatives develop their own organisational values statements, independent of the senior management, before a final stage of negotiation with them. The findings support the argument that the shaping of collective organisational values should be based on a clear understanding and communication of employees' personal values, and Schwartz's circumplex model of values and associated survey instrument are helpful framing devices to initiate and structure such a debate. Compared to the usual management-imposed approach, this bottom-up process could make organisational values explicit in a more understandable and useful way, and improve values congruence between individuals and host organisations.

Keywords Case study, Management, Organisational values, Personal values, Values statements.

INTRODUCTION

Values have held a prominent place in both business ethics and organisational theories, but there is now a detectable shift from management by instructions and objectives to management by values (Blanchard and O'Connor, 1997; Dolan and Garcia, 2002), or values-based management (VBM) (Pruzan, 1998). VBM aims to create conditions under which all employees can perform independently and effectively toward a single objective (O'Toole, 1996). It has three purposes, to: a) simplify organisational complexity created by the need to adapt to changes; b) guide strategic vision towards future destination of the company; and c) secure commitment of every employee to deliver a high quality work performance (Dolan and Garcia, 2002).

In response, many organisations have instituted decentralised structures, i.e. changed from top-down management and closed departmental functions, to more horizontal structures of open and cross-department communication, which rely more on a shared understanding of their core purpose and core values (Vogelsang, 1998). Some now devote significant energy to integrating values into their business practices, including very successful businesses (e.g. General Electric, Microsoft and Levi Strauss).

Nevertheless, VBM is by no means a quick win. It requires a clear and thorough understanding of organisational values in the first place, and continuous efforts to instill them into organisational behaviour in the long term. Many believe organisations should have values that both reflect collective values of all employees and align with individual values (Sawhney, 2002; Peat, 2003; Jaffe and Scott, 1998), however, most corporate values are generated by those in a leadership position, which often fails to address employees' personal values. Confusion persists about how organisational values should be developed, yet there is a dearth of literature offering guidance and suitable approaches.

This paper describes the process and findings of a values study conducted in all the UK offices of a global construction management services organisation. The change from partnership to Limited Liability Company challenged the company to establish a cultural identity compatible with its new legal status, and offered opportunities to set a vision for its future. Meanwhile, the traditional, hierarchical organisational structure inherited from the previous partnership culture was found to be a barrier to internal communication and collaboration, preventing timely response to external demands. These cultural and related structural changes suggested the need for a clearly defined business purpose that is based upon a set of authentic organisational values to bond people to the goals of the organisation.

We adopted a bottom-up approach by surveying and consulting the values of all the staff. Schwartz's values survey (SVS) instrument and values theory are, for the first time, applied extensively in an organisational context, as opposed to the comparative intercultural research conducted at the national/cultural level. The work involved the application of this theory to UK construction. We offer practical guidance on how to identify employees' personal values and hence formulate collective organisational values statements.

LINKING PERSONAL AND ORGANISATIONAL VALUES

PERSONAL VALUES

Many theorists, including psychologists, sociologists and anthropologists view values as the criteria used to select and justify actions and to evaluate people (including the self) and events, and claim values as the deepest and most powerful motivators of personal action (Table 1).

Table 1 Examples of Definitions / Thoughts on Values

Author(s)	Definitions of Values
Parsons (1951)	An element of a shared symbolic system which serves as a criterion or standard for selection among the alternatives of orientation which are intrinsically open in a situation.
Jacob et al. (1962)	The normative standards by which human beings are influenced in their choice among the alternative courses of action they perceive.
Rescher (1969)	Things of the mind that are to do with the vision people have of the good life for themselves and their fellows, which motivate people to achieve satisfactions and avoid dissatisfactions.
Rokeach (1973)	An enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence.
England (1975)	A personal value system which is a relatively permanent, perceptual framework that shapes and influences the general nature of an individual's behaviour.
Posner et al. (1987)	General standards by which we formulate attitudes and beliefs and according to which we behave.
Hofstede (1994)	Broad tendencies to prefer certain states of affairs over others.

Schwartz (1992) and Schwartz and Bilsky (1987, 1990) summarised five formal features of values recurrent in the literature: values are beliefs; they are a motivational construct; they transcend specific actions and situations; they guide the selection or evaluation of actions, policies, people, and events, and they are ordered by relative importance. Schwartz (1999) therefore defines values as 'conceptions of the desirable that guide the way social actors select actions, evaluate people and events, and explain their actions and evaluations'. Similarly, Argandoña (2003) defined values in a broad sense as 'central desires or beliefs regarding final states or desirable conducts that transcend specific situations, guide the choice and evaluation of our decisions and, therefore, of our conducts, becoming an integral part of our way of being and acting to the point of shaping our character.'

A central theme emerging from the literature is that personal values serve as relatively stable standards in one's life, which ultimately motivate and guide his/her behaviour. However, this is not to suggest that personal values are purely self-oriented. Indeed, as claimed by Rokeach (1973), values serve not only to

reinforcing our self-image, but also function in the interests of society. He argued that values have either a 'personal focus' or a 'social focus', and are 'self centered' or 'society-centered'. England (1967) refers to values as being 'individualistic' or 'group oriented'. These are supported by Schwartz and Bilsky (1987, 1990), who argued that values represented three universal requirements of human existence: a) needs of individuals as biological organisms; b) requisites of coordinated social interaction; c) survival and welfare needs of groups. Hemingway (2005) shared the same view by claiming that the dual purpose to the function of values can be categorised as 'individualistic' or 'collectivist'.

It can be concluded that personal values operate at both individual and social level. Therefore, the investigation of personal values will be important in understanding individuals as well as the organisational groups in which they are involved.

ORGANISATIONAL VALUES

Human beings have strong and fundamental need to belong and be accepted by others (Baumeister and Leary, 1995). For the majority of people, a work group forms an important part of their social relationship. People bring their values into the work setting (Robertson, 1991), and these work-related values are considered to be 'the evaluative standards relating to work or the work environment by which individuals discern what is 'right' or assess the importance of preferences' (Dose, 1997). They are important in people's working life by fundamentally shaping their attitudes towards job, colleagues and their workplace performance.

As such, it is not surprising that values have held a prominent place in both business ethics and organisational theories. Many believe that organisational values are characterised as having organisation-wide consensus, consistency and clarity between the intent of the organisational and employee behaviour, with the exclusion of ambiguity (e.g. Porter, et. al., 1974; Peter and Waterman, 1982;

Meglino and Ravlin, 1998). Hence organisational values are often referred to as the shared values of all employees. They are relatively stable, enduring and serve as 'rules of life' (Gad, 2001) for making decisions about priorities in the organisation (Christensen, 2001). These widely shared, yet distinctive organisational values with resulting behaviour and artifacts are held to be a critical feature of organisational culture and cultural differences (Hofstede, 1980; Schwartz, 1992; Schwartz and Bilsky, 1987, 1990; Whitley and England, 1977).

Many have proposed that superior organisational performance will result from strongly held shared values, and believe companies with positive corporate values can experience a significant reduction in counterproductive behaviour. Collins and Porras (1996) researched many successful companies and found they all adopt the premise of shared organisational values as an underlying philosophy. In contrast, companies which concentrate on the physical aspect of their being, and ignore their emotional, mental and spiritual needs may struggle to survive (Geus and Senge, 1997). Similarly, Pant and Lachman (1998) claim that management will have a hard time implementing a strategy incompatible with organisational core values. Furthermore, Sillanpää (1998) argues that companies 'need to listen, to process and to respond positively to the values and beliefs of their stakeholders... Failure to do this will reduce competitiveness and increase the risk of corporate demise'.

Thus, many believe it is the organisational values that drive the business. They help clarify a company's identity and rally employees (Lencioni, 2002). Competitive demands call for highly conscious organisations which rely on clear, consistent communication of a shared but not imposed core value set (Edgeman, 1998), upon which the edifice of value creation must rest (Sawhney, 2002). Hence it could be argued that manifesting organisational-shared values is a viable approach to achieve ultimate organisational success.

Unsurprisingly many organisations have expended significant time, effort and money on composing organisational values statements, which are then meant to become a benchmark for employee commitment and behaviour. These values are often established by the founders (explicitly, if not implicitly) and compounded further by the personalities and transforming activities of their inheritors (Anthony, 1994; Collins and Porras, 1997; Dearlove and Coomber, 1999). However, in a mature organisation there is a danger that values and practices espoused by the current leaders may not be aligned with those of the followers/employees. Meanwhile, employees may subscribe to a value without knowing why they should stick to it and how to live and breathe it. Such values are difficult to enact in situations that challenge them (Maio and Olson, 1998; Maio et al., 2001). This could be solved by articulating employees' personal values and linking them with organisational values, which is explored below.

THE IMPORTANCE OF LINKING PERSONAL AND ORGANISATIONAL VALUES

The preceding argument makes clear that values are fundamental and enduring aspects of both people and organisations, and it illuminated areas of value congruence, where individual values coincide with values at the organisational level. According to Schneider (1987), people are attracted to organisations precisely because they perceive them to have values similar to their own. Research has also shown that where there is overlap between organisational and employees' values, the employee tends to demonstrate a preference for, and commitment to that employer (Sen and Bhattacharya, 2001). On the other hand, organisational values which interact with particular situations (e.g. incentive systems and norms), can affect the individuals' attitudinal and behavioural response. Understanding an organisation's values can enhance people's adjustment to their jobs (Wanous 1977), their subsequent level of satisfaction and commitment (O'Reilly et al. 1991). The study conducted by Hyde and

Williamson (2000) provided empirical evidence that there is a direct correlation between values congruence and employee satisfaction.

Unfortunately, managers and employees maybe unaware of the values they and their organisations possess. Lack of respect for their co-workers' values could cause friction, whilst confusion surrounding organisational values could impair performance. A 1995 study of 580 UK companies concluded that organisations could only empower people when everyone shares a very strong organisational vision, which requires organisations to be explicit about their values (Industrial Society, 1995). Therefore, research on understanding personal values and linking them to organisational values may provide a legitimate insight into improving people and organisational development in the long term.

Nevertheless, identifying organisational values is not an easy task. There is considerable confusion about how organisational values should be developed. Little attention has been given to the importance of employees' personal values and as a result, such values are difficult to enact and sustain. Lencioni (2002) claimed that many values statements are 'bland, toothless, or just plain dishonest' which 'create cynical and dispirited employees, alienate customers, and undermine managerial credibility.' Sillanpää (1998) argued that 'articulated top-down or cast in tablets of stone values are non-inclusive and would inevitably become ossified', and proposed that organisations should align personal and organisational values. Further, Dearlove and Coomber (1999) claimed that the key to define organisational values is to 'capture what is authentically believed, not what other companies select as their values or what the outside world thinks should be the values'.

We concluded that most effective way of developing the powerful connection between the values of a company and its employees is to encourage staff to clarify their personal values and to link them to the organisational values. It is believed that individuals at all levels should have the understanding and skills to

make value judgments, consciously informed by their individual and organisational values. This study aims to establish this linkage and guide the organisation to develop collective organisational values.

METHOD

Few structured methods have been derived from theory which facilitate the alignment of individual and organisational values. Brainstorming is common, but the difficulty in involving large numbers limits this approach to small groups (often the senior management of the organisation). As a result, these values can only describe an organisation's high-level priorities from a limited perspective. Meanwhile, the values statement identification process is often unstructured, so the range of values is often limited. What is more, if employees have not been included in the definition process they may not be as motivated and committed to the resulting statements.

Where a more inclusive approach is taken, the advice in the literature is usually on a high-level process rather than robust supporting techniques. For example, Argandoña (2003) proposed six stages to identify individual values, and then progressively foster those shared, adopted and finally held by the group. He takes a pluralist position, recommending that the organisation seek unity in fundamental ends values but gives individuals freedom in their degree of adoption of supporting means values. No advice is given in how to undertake each step beyond mention of lists, statements and discussion. Similarly, Jaffe and Scott (1998) outline a process used with multi-national companies, but make reference to the use of 'value cards' as a starting point to initiate the discussion.

In contrast this research adopted a bottom-up approach which characterised an organisation's values by surveying and consulting with most of its members and relating the results to a model of universal values. However, some argue that it is not sufficient to infer values from attitude surveys alone (Smucker, 1982; Schooler, 1983). Therefore, a multi-methodology approach was adopted whereby

the quantitative studies were supplemented with workshop-based in-depth qualitative inquiries with the aim of creating a broad-based picture of the organisation's values profile which would help bond the employees together to work in the same direction.

QUESTIONNAIRE SURVEY

An organisation-wide questionnaire survey was conducted amongst the 456 employees to capture their personal value priorities in an efficient and economic way, and to support a cross-sectional study.

Among the most notably instruments are the Rokeach value survey (RVS), Hofstede's value survey module (HVSM), the Competing values framework (CVF) and Schwartz values survey (SVS). Although widely used, each embodies unavoidable difficulties. Some argue that the RVS is too open to interpretation and not specific to actual behaviours (Feather 1988, Gibbins and Walker 1993, Johnston 1995). The HVSM has been increasingly criticised as being non-exhaustive, not reflecting the full spectrum of national cultures, not representative of the general population of their respective countries, and value items not necessarily conceptually equivalent across cultures (e.g. Brett and Okumura, 1998; Schwartz, 1994; Steenkamp, 2001); some consider it as out of date and too condensed to capture culture (McSweeney, 2002, Shenkar, 2001; Smith et al., 2002). Meanwhile, as an ipsative¹-type instrument, CVF has been criticised when scores generated by it have been used as independent variables in analyses (Cornwell and Dunlap, 1994).

The Schwartz Values Survey (SVS) (Schwartz, 1992) defines a comprehensive typology of cross-cultural human values based on the relative importance of 56 generic values. It has a normative format (Chatman, 1991), designed to avoid inadvertent bias. Subjects rate on a nine-point Likert scale from -1 to 7, the importance of each item in their lives, with one supremely important value 7 and one least important value -1, 0 or 1 to anchor the responses.

The SVS instrument assesses how important these values are as 'guiding principles of one's life' rather than desirable end states or ideal behaviours. This can help eliminate the chance of situational variables having a strong impact on the respondents (Dahl, 2004). The values within the SVS are theoretically derived, have a more comprehensive set of value dimensions, and have been tested with more recent data across diverse regions and cultures.

Our questionnaire was a slightly adapted form of the SVS, to speak in language relevant to the construction respondents. A scale use correction process were conducted using the individual's mean rating of all value items as a covariate to center each participant's responses (Schwartz and Littrell, 2007). These centered value scores (CVS), rather than the raw scores, were then used in the analysis.

WORKSHOP

Rekom et al. (2006) argue that instruments such as the RVS and the SVS have some drawbacks when establishing the core values. They claim that it is methodologically difficult to sort out socially desirable answers from values effectively underlying respondents' concrete behaviour and there is no guarantee that these lists include the specific core values of the organisation. Schwartz (1992) also pointed out that, because people express values in real-life contexts, much will be gained from methods that embed values in concrete everyday situations. Therefore, a follow-up workshop was held to discuss the survey results, and provide the opportunity for employees to relate values to their everyday work practice. It focused on the subjective experience and perception and involved direct interaction between individuals in a group setting to gain deeper insight.

PILOT STUDY

Prior to the main research, a pilot values study was undertaken in one office to test whether the research design was sound, research protocols could be followed, and proposed methods/instruments are appropriate.

THEORETICAL FRAMEWORK

This study examined values through the lens of Schwartz values theory (Schwartz, 1992). From samples of more than 60,000 individuals from over 60 nations, and based on universal requirements of human existence, Schwartz values theory identifies ten motivational distinct values (Figure 1). He proposed a circumplex model to represent and explain the dynamics of conflict and congruence, whereby adjacent value types are most compatible, and a greater distance indicates greater conflict (those opposing being in greatest conflict). The ten categories are grouped into four higher order groups, which demonstrate two bi-polar dimensions, where 'openness to change' contrast to 'conservation' values, and 'self-transcendence' contrast to 'self-enhancement' values.

Eliason and Schubot (1995) claim that Schwartz's framework provides an extensive coverage and analysis of values and is the most widely used instrument for measuring personal values. Moreover, Brett and Okumura (1998) argue that it is superior to Hofstede's because it is based on a conceptualisation of values; it was developed with systematic sampling, measurement and analysis techniques; and its normative data are recent. We therefore conclude that Schwartz's values framework is a useful, well-researched and tested vocabulary to communicate values between individuals and those of their organisation, and hence an appropriate theoretical framework for this study.

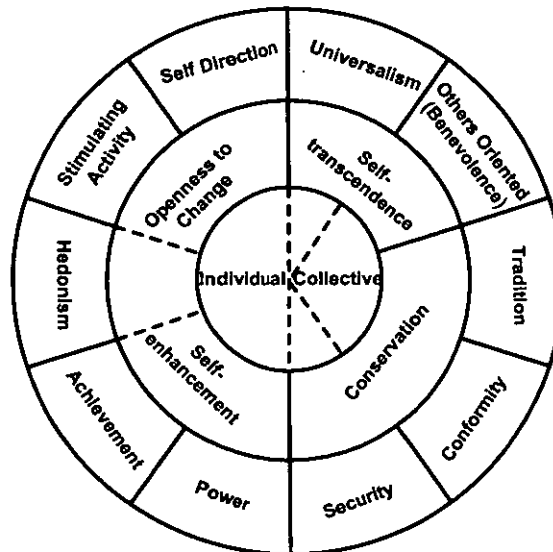


Figure 1 A universal values system/structure adapted from Schwartz (1992) (After Millis et. al., 2006)

THE STUDY

THE ORGANISATION

The study was conducted in all the UK offices of a global construction management services organisation. The organisation faced the challenge to establish a cultural identity compatible with its new legal status, as well as the opportunities to set a vision for its future. Meanwhile, the traditional hierarchical organisational structure inherited from the previous partnership culture prevent the company from responding quickly to the changing customer and market needs, and act as a communication barrier between its 16 UK offices. The rivalry between offices forced them to make decisions which benefited themselves rather than the business as a whole. The Group CEO set out the intention to move the business towards a more client-centric approach and break the office silo structure. A set of strong, concise and meaningful values that 'live and breathe' throughout business operation was needed. However, although the company had formal vision and mission statements, they were compiled by senior

management, and there was little emphasis on organisational and human values. Senior management accepted the desirability of establishing a set of authentic organisational values, that are formulated around the commonly held values of the staff, and endorsed an organisation-wide values study.

ORGANISATION-WIDE QUESTIONNAIRE SURVEY

Key stages

Initial Impetus and Preparation

Prior to the survey, presentations were given to the management board, the company's two UK based strategic business units (SBU) management meetings, head office, back office (including finance and human resource departments), and several big regional offices within the company, to brief the background information of the upcoming survey and get as many people involved as possible. These face-to-face contacts enhanced the understanding and communication.

Pilot Study

The values questionnaire was sent to every employee of the office, and a total of 25 responses (100%) were received and analysed. This was followed by a half-day workshop to discuss the survey results and link them to organisational values and work practices (see Zhang et al., 2006). The pilot study facilitated the development of a set of office values statements. Further refinements were made to the analytical method and instrument, including the need for a longer workshop. The results were presented to the management board which approved the rollout across the organisation.

Organisation-wide Questionnaire Survey

The values questionnaire was sent to every UK employee (456 in total) of the company based in its 16 UK offices in mid-2005. A total of 411 (90%) anonymous responses were obtained giving a representative picture of the organisational values profile (Table 2).

Table 2 Survey sample characteristics

Categories	Number of Responses Received	Percentage of Total Responses	Percentage of the Subgroup in Organisation
Age Band			
<26 years of age	34	8%	10%
26-35 years of age	111	27%	27%
36-55 years of age	198	48%	46%
>55 years of age	68	17%	17%
Gender			
Female	92	22%	32%
Male	319	78%	68%
Management Level			
Directors	27	7%	6%
Divisional Directors	27	7%	7%
Associates	49	12%	11%
Others	308	75%	77%

The responses were analysed by spreadsheet within a framework based on Schwartz's value theory as shown in Figure 2.

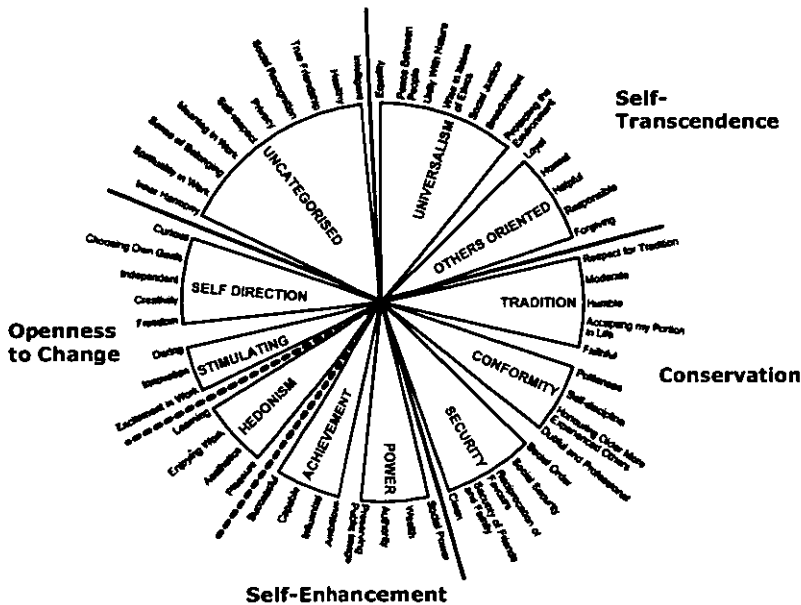


Figure 2 Values framework used in survey analysis. (After VALID, 2005)

Values Survey Results and Discussion

The CVS of each respondent, the mean CVS and standard deviation across the organisation were plotted in a radar diagram (Figure 3) and sent to each participant with notes to facilitate understanding. Similar values charts compared the mean CVS of each office to those of the organisation.

The values priority and consensus among organisational members are indicated by the organisational mean CVS and standard deviation of CVS. Table 3 and 4 present the prioritised results respectively.

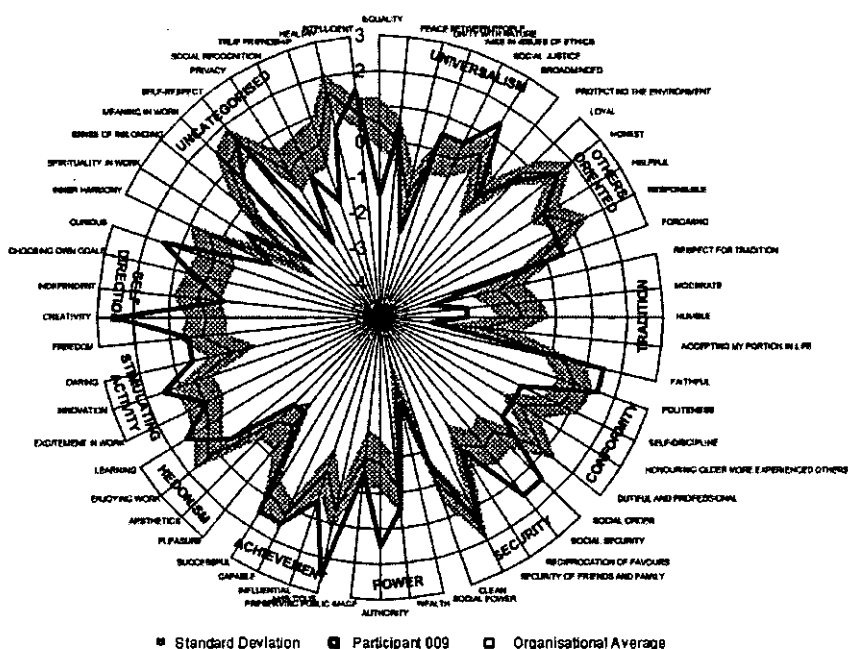


Figure 3 Example of an individual's values chart

Table 3 Very/supremely important values by individuals (Mean CVS > 1)

Rank	Value Items	Organisational Mean CVS	Organisational Standard Deviation of CVS
1	HEALTHY	1.55	1.12
2	HONEST	1.51	0.94
3	SELF-RESPECT	1.40	1.01
4	SECURITY OF FRIENDS AND FAMILY	1.36	1.32
5	ENJOYING WORK	1.30	1.07
6	CAPABLE	1.21	0.91
7	RESPONSIBLE	1.13	0.85
8	MEANING IN WORK	1.09	1.05

Table 4 Least important values by individuals (Mean CVS<1)

Rank	Value Items	Organisational Mean CVS	Organisational Standard Deviation of CVS
7	PLEASURE	-1.05	1.72
6	MODERATE	-1.13	1.48
5	UNITY WITH NATURE	-1.50	1.57
4	RESPECT FOR TRADITION	-1.56	1.54
3	ACCEPTING MY PORTION IN LIFE	-2.05	2.06
2	SPIRITUALITY IN WORK	-2.20	1.70
1	SOCIAL POWER	-3.03	1.75

While the majority (73%) of values have a mean CVS between -1 and 1, Table 3 listed the top 14 percent (eight out of fifty-six values) important values viewed by individuals, which have a mean CVS above 1. Table 4 demonstrated seven (13%) value items that have a mean CVS below 1, which can be considered as the least important items across the organisation.

Tables 3 and 4 suggest that the organisation is typical of a professional organisation, where employees have heavy emphasis on achieving high ethical and professional standards in their work. They were happy to conduct work that is interesting and meaningful, which enable them to develop themselves, make a contribution to, and find reward from, their work activities. More importantly, it is noted that 'healthy' and 'security of friends and family' are ranked very high in the survey, which highlighted the fact that employees preferred a friendly atmosphere where they can retain a work-life balance. It was also found that social power was not strongly desired by these people and they had less interest in soulful matters and tradition. However, as an organisation in an industry that has a big impact on the environment, it is of some concern that employees regard 'unity with nature' as of very low importance.

In addition, the mean CVS of Schwartz's higher-level values categories are calculated and prioritised as shown in Figure 4 and Table 5. Table 6 presents the mean CVS of Schwartz's bi-polar dimensions.

With respect to values categories, Table 5 suggests that respondents perceived 'stimulating activity', 'hedonism', 'self direction', 'security' and 'universalism' to be

of moderate importance in the organisation. There was a substantially more positive feeling about 'Others Oriented', 'Achievement' and 'Conformity', together with a considerably negative feeling about 'tradition' and 'power'. Perhaps this is indicative of construction organisations in the UK where teamwork, mutuality are required, where acting according to certain accepted standards are essential and forced by the government, and where achievements are pursued but acceptance of authority and tradition are questioned by the typically highly educated professionals. However, it is found that 'others oriented' and 'achievement' are in opposing directions in Schwartz's values framework, hence are postulated to be in greatest conflict (Schwartz 1992, 1994). As they were both viewed by individuals as very important, the company will have to pay more attention in decision making process to ensure that any decision encourage one of them does not suppress the other, and it is also necessary to provide training and guidance to help people make the right choice when conflict occurs.

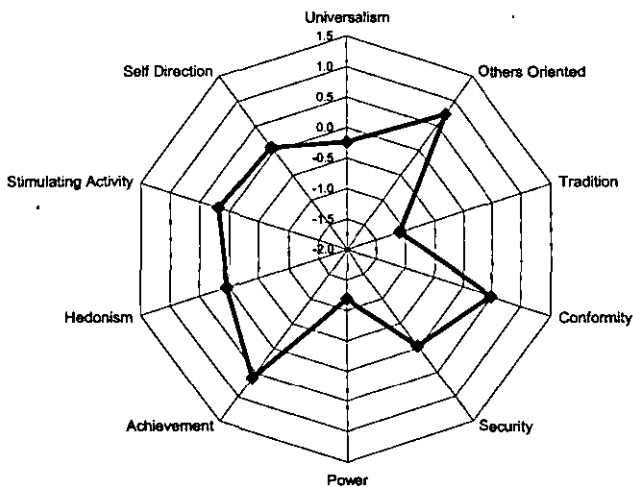


Figure 4 Organisational mean CVS of values categories

In terms of the values dimensions, Table 6 indicates that 'self-transcendence' and 'openness to change' are of relatively greater importance. This suggests that

employees within this organisation preferred a united organisation where people work together to improve the company performance. They were not very conservative and ready to welcome changes.

Table 5 Importance of values by category.

Rank	Value Categories	Organisational Mean Score Per Values Category
1	Others Oriented	0.73
2	Achievement	0.58
3	Conformity	0.51
4	Stimulating Activity	0.14
5	Hedonism	0.05
6	Self Direction	0.04
7	Security	-0.03
8	Universalism	-0.19
9	Tradition	-1.06
10	Power	-1.26

Table 6 Importance of values by dimension.

Rank	Values Dimensions	Organisational Mean Score Per Values Dimension
1	Self Transcendence	0.20
2	Openess to Change	0.07
3	Self-Enhancement	-0.21
4	Conservation	-0.25

Further analyses were carried out to investigate the values differences between various sub-groups. Due to the fact that some respondents chose not to provide certain background related information, the total numbers of the valid responses for these group comparisons are slightly lower than the previous analysis. The responses range from 378 to 381, which represent 83 to 84 percent of response rate. The mean CVS of different groups were calculated, and further one-way analysis of variance test (ANOVA) revealed the statistic significance of the results and highlighted the major differences.

The variations across the age groups are shown in Figure 5 and Table 7. Generally speaking, the mean scores of these groups follow a similar trend. The ANOVA reveals no significant differences between these age groups with regard

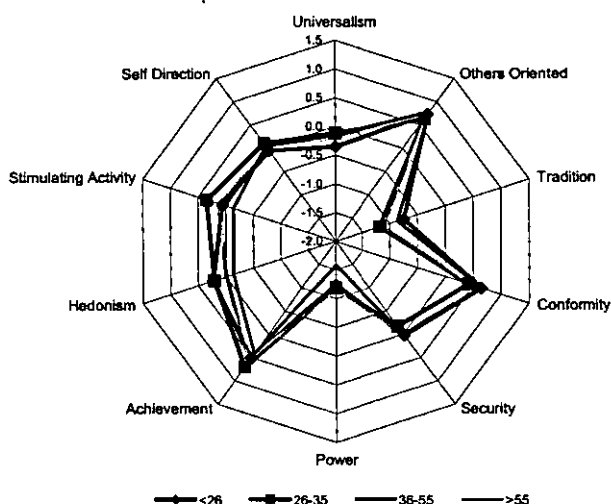


Figure 5 Values differences (mean CVS) between age groups

Table 7 Significant differences between age groups.

Values categories	F (3, 374)	p (<0.05)	Eta Squared	Group with significantly high score	Group with significantly low score	Score difference
Hedonism	5.204	0.002	0.04	<26	>55	0.4
				26-35	>55	0.3
				26-35	36-55	0.2
Tradition	4.474	0.004	0.04	<26	26-35	0.4
				>55	26-35	0.3
Power	4.198	0.006	0.03	36-55		0.4
				26-35	>55	0.4
Stimulating Activity	3.768	0.011	0.03	26-35	>55	0.5
Security	2.969	0.032	0.02	36-55	26-35	0.2

to the values categories of 'universalism', 'other oriented', 'conformity', 'achievement' and 'self direction'. Statistically significant differences are found in values categories listed in Table 7. It appeared that the older employees (>55 years old) gave a significantly lower score to 'hedonism', 'power' and 'stimulating activity' than their younger colleagues, and gave much higher scores to 'tradition' than the 26-35 age group. This indicates that the older staff are not very open to changes and have less interest in self-enhancement. It is also found that, generally speaking, the older groups consider 'hedonism' of less importance than the younger groups. Meanwhile, the youngest (under 26 years old) and oldest (above 55 years old) groups give a much higher score to 'tradition' than those

between 26 and 35. Furthermore, 'security' is of greater importance to staff aged 36 to 55 than those between 26 and 35.

The differences between directors and other staff are shown in Figure 6 and Table 8. The top two levels of management have very similar values perceptions. This may be related to how the senior managers were selected within the organisation. Whilst all the groups gave very similar scores to 'security' and 'others oriented' values, the major differences emerge between the senior managers and other staff, with the middle management, i.e. associates, aligning with one or the other. As shown in Table 8, the managers gave significantly higher scores on 'achievement' than the other staff ($P<0.0005$). The effect size eta squared values is 0.09, which in Cohen's (1988) terms would be considered a medium effect size. With a large enough sample (in this case $N=381$), this difference can be considered as rather significant. Similarly, compare with other staff and/or the associates, the senior managers gave significantly higher scores to 'stimulating activity' and 'power'. Meanwhile, these senior managers gave

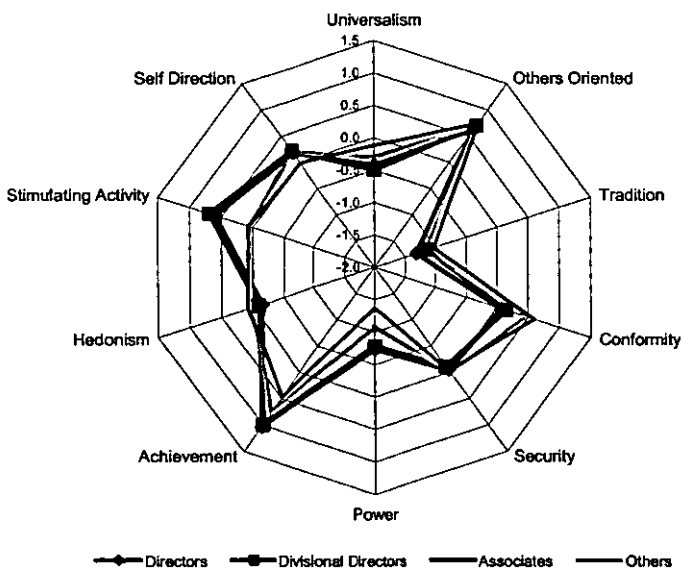


Figure 6 Values differences (mean CVS) between management levels

significantly lower score to 'conformity' in comparison to other staff. This indicates that senior managers are generally more open to change and focusing on self enhancement, while the other staff are relatively more conservative. Revealing these differences could facilitate mutual understanding and form a base to shape the company's strategic management.

Table 8 Significant differences between management levels

Values categories	F (3, 377)	p (<0.05)	Eta Squared	Group with significantly high mean score	Group with significantly low mean score	Mean score difference
Achievement	12.350	0.000	0.09	Directors	Others	0.6
				Divisional Directors		0.5
				Associates		0.3
Conformity	9.385	0.000	0.07	Others	Directors	0.5
					Divisional Directors	0.5
Stimulating Activity	8.405	0.000	0.06	Directors	Others	0.6
				Divisional Directors		0.6
				Directors	Associates	0.6
				Divisional Directors		0.6
Power	6.157	0.000	0.05	Directors	Others	0.6
				Divisional Directors		0.6

The differences between female and male employees' are shown in Figure 7 and Table 9. Male employees gave significantly higher scores to 'power', whilst female employees score 'universalism' and 'conformity' higher. However, as evident in the small effect size (eta squared values range from 0.01 to 0.03), these differences are not as significant as those between other groups, indicating that these gender differences are minimal, consistent with the findings of Rowe and Snizek (1995), who argued that continued emphasis on gender differences merely serves to reinforce traditional gender-role stereotypes and to perpetuate gender inequality in the workplace.

Overall, the results revealed the values priorities and certain differences between sub-groups. No significant differences were found in 'self direction' and 'others oriented' values. However, significant age, gender and management level differences were found in the values category of 'power'. Male employees, senior managers and people between 26 and 55 consider 'power' as of greater important than others. Furthermore, greater differences were found between different management level groups than those of age group, and there were even less

significant gender differences exist in the organisation. These findings could enable employers to assess the extent to which they take into account the concerns of different groups of employees, and, while expecting full commitment from employees, to recognise their particular priorities to other aspects of working life. In addition, they could evoke a wider social awareness and concern. The more we know about these values priorities and differences, the easier it is to understand and accommodate them within the organisation, which may have positive impacts on levels of motivation and job satisfaction among individuals, and hence the business performance.

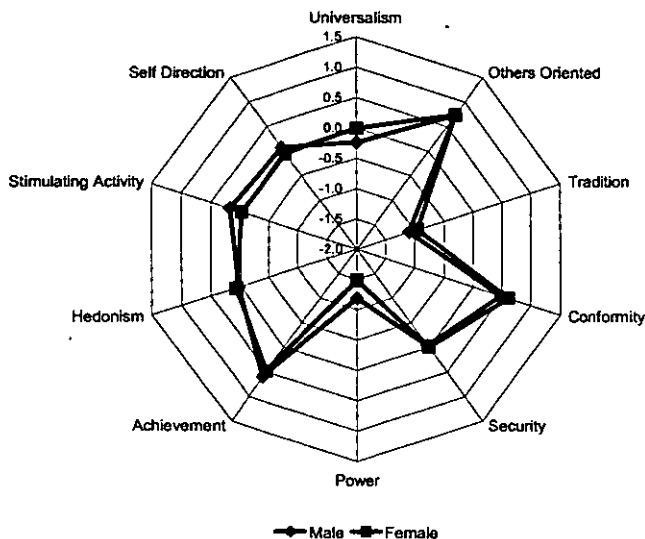


Figure 7 Values differences (mean CVS) between genders

Table 9 Significant differences between genders

Values categories	F (1, 377)	p (<0.05)	Eta Squared	Group with significantly high mean score	Group with significantly low mean score	Mean score difference
Power	13.171	0.000	0.03	Male	Female	0.3
Universalism	11.725	0.001	0.03	Female	Male	0.2
Conformity	4.390	0.037	0.01	Female	Male	0.2

FOLLOW-UP WORKSHOP

A one-day workshop was held with the aim of creating an environment for people to share their individual values with others, explain the meaning of these values for their working life and identify the core shared values of the organisation.

Key Stages

Pre-workshop

Twenty-six staff were invited to form a 'values group' using the following criteria:

a) select individuals who are enthusiastic about the study, respected in their offices, and good communicators; b) keep the balance between people from different age, gender, ethnic, geographic location, professional discipline, staff grade and management level; c) exclude management board members to avoid hindrance of expression, although the outcomes were presented to and discussed with them at the end of the research. The selection (see Table 10) was endorsed by six strategic business unit directors.

Six workshop groups were formed with a mix from different backgrounds. Two external facilitators guided the activity, with the aim of overcoming the insider's 'lack of awareness', avoiding 'subjectivity bias' (Schein, 1992) and allowing free expression and fair control of the progress.

One month before the workshop, each values group member was asked to conduct a pre-workshop activity within his/her base office to gather employees' opinions on 'What should be the most important values in the company, and why?' An information pack was provided, which included detailed instructions, office/organisational values charts and values survey summary results. The pre-workshop activity was undertaken in all UK offices across the organisation and involved the majority of the employees.

Workshop

The workshop comprised the following steps:

- 1) Introduction and explanation of the workshop process
- 2) Group discussions on 'What should be the most important values within the company'
- 3) Presentations from each group
- 4) Identification and prioritisation of shared values
- 5) Development of draft values statements
- 6) Conclusion

Table 10 Workshop participants' characteristics

Categories	Number of Workshop Participants	Percentage of Workshop Participants	Percentage of the Subgroup in Organisation
Age Band			
<26 years of age	2	8%	10%
26-35 years of age	10	38%	27%
36-55 years of age	12	46%	46%
>55 years of age	2	8%	17%
Gender			
Female	9	35%	32%
Male	17	65%	68%
Management Level			
Directors	0	-	6%
Divisional Directors	2	8%	7%
Associates	4	15%	11%
Others	20	77%	77%
Professional Discipline			
Cost Manager	11	42%	46%
Project Manager	7	27%	20%
Consultant	4	15%	17%
Support	4	15%	17%
Service Length			
<1 Year	6	23%	21%
1-5 Years	13	50%	49%
6-10 Years	4	15%	16%
>10 Years	3	12%	14%

The groups shared results from the pre-workshop office sessions, to deepen the collective understanding of the values identified. There were lively debates about which values were most important for their work and were essential to high performance. For example, when discussing the concept of 'Teamwork', some argued that the competition between offices is healthy and promotes office competency, whilst others commented that *'we appear to compete against other offices and departments rather than maximising the potential of the whole group.'*

We need to develop an understanding of their businesses and see where symbioses can exist'. The debate revealed the conflict between self-enhancement and self-transcendence values as highlighted by Schwartz, and also brought the concept of 'organisational decentralisation' to everyone's attention.

The group discussion yielded much qualitative data. Coloured post-it-notes recorded their ideas and suggested phrases for values. We subsequently identified that some items were not values but organisational behaviours that compliment values, and hence excluded from the workshop discussion, but recorded for future use. The important values were located on a blank Schwartz circumplex model chart next to the related universal values, to build an overall organisational values profile. This also helped categorise these values and reveal the interrelations between them.

Each group then shared its proposed values with other participants, giving each participant the opportunity to appreciate and verify other groups' work, communicate and justify the most important values for the organisation, and add further thoughts to the discussion. When there were differences of opinion, time was given to reach a consensus. For example, by discussing the two opinions regarding the concept of 'Teamwork', and checking the interrelationships between relevant values on the Schwartz's values framework, the majority of people agreed that breaking the office 'silo' is a better way to response to internal and external needs.

Following these steps, inductive content analysis was conducted with the objective of discovering themes. The cards from each group were coded descriptively to summarise chunks of meaningful data into themes (Miles and Huberman, 1994), e.g. 'care for environment', 'teamwork' and 'embrace change'. In this stage, more than 200 ideas were distilled to thirteen themes, which represent the core organisational values. Each group was tasked with drafting 2-3

values statements. Finally, the whole process informed the formulation of draft organisational values statements.

Post workshop

Following the workshop the draft values statements were sent to everyone within the organisation for comment. The cycling of materials between the participants helped gain higher levels of commitment from a larger number of people (Whyte et al., 1991). Several local office meetings helped engage the majority of employees in a dialogue about the organisation's values proposition, collect the comments and feedback to the group for discussion. The whole process ensured that the statements would reflect the shared values of all employees of the company. The statements were re-visited and challenged at a subsequent workshop where some further editing and refinement was undertaken by the values group.

Senior management review/ negotiation

Further to the workshop a presentation of the results was given to the Management Board. There was a lengthy discussion regarding the survey and workshop outcomes. The values study was highly appreciated and at a subsequent meeting, the Board decided that regular quarterly values workshop sessions should be held in the future, with the aim of exploring ways to integrate these values into organisational behaviour.

Workshop Results and Discussion

The workshop discussion provided an opportunity where ideas are expressed freely, paradigms were challenged, personal values were respected and shared values are identified. People's personal values were activated at the interpersonal or collective levels. The goal was not to achieve absolute consensus on values but to recognise employees' shared values related to their working life. The process also helped identify the values diversity, which are discussed under the umbrella

of the organisational core values. The outcome was a set of values statements developed by the employees (Table 11).

The workshop outcomes are generally aligned with the survey results. The statements emphasise the categories of 'others oriented' and 'stimulating activities', which represent the dimension of 'self transcendence' and 'openness to change'. The underrated value 'unity with nature' in the survey was identified by a few group members and discussed intensively in the workshop. It was agreed to be of great importance, albeit more aspirational, and therefore included in the final statements. This provided evidence that engaging people in a values dialogue can be effective in improving mutual understanding and identifying aspirational goals, and in some cases be used to guide or activate certain values, which could then affect people's behaviour. It also demonstrates the complementary nature of combining quantitative and qualitative methods in the study.

Meanwhile, Schwartz's values theory helped reveal the dynamic relations among the staff. According to Schwartz (1992), simultaneous pursuit of certain sets of values may cause psychological and/or social conflict. For example, the pursuit of 'others oriented' values may conflict with the pursuit of 'Achievement' values - enhancing the welfare of others may interfere with the pursuit of one's own success. Attention must be paid to these potentially conflicting values (see Table 11); in this case, conflict may exist between (V1, V2) and (V5, V6); (V3, V4) and (V7, V8). Understanding the interrelationship of these values can help organisations balance its strategy in an intentional way.

The senior management of the organisation undertook a parallel 'top down' approach to identify key values and behavioural issues taking consideration of the company and other stakeholders' needs (Table 11). These were challenged in another workshop where the Values Group critiqued the work and made a number of suggestions for changes. The most significant concern was the need

to demonstrate that key organisational values adopted by the business are a combination of both bottom-up and top-down values - not one imposed on/driven by the other.

A critique of the main compatibility issues was carried out to achieve a result that gives credibility to both 'top down' and 'bottom up' approaches and the potential for long term buy-in across the business. Finally, the bottom-up version and top-down version merged into a set of values and behaviour statements which represent the collectively shared values of everyone within the organisation. They are of top priority as perceived by both the management and the staff at that point in time.

The employees were committed to the statements because they were generated by a considerable joint effort. One participant commented that the whole process is about *'finding places where we come together instead of pull apart - because we do that naturally.'* The statements have already been used in one office for recruitment and tendering. In the former case, the intention was to demonstrate the company's identity and attract people who have not only suitable professional backgrounds, but also share the same values as the organisation. In the second case, it helped the company differentiate itself from the competitors and demonstrated the values alignment between themselves and the client's organisation, which was viewed positively by the clients. In addition, there is also a plan to integrate these values into personal development processes.

It could be argued that the process of creating the statements (entailing reflection and self-examination) is as valuable as the words that are ultimately written. The real outcome of the workshop brought together individuals to collectively make sense of the meaning of values. The method used in this study therefore proved to be a simple and effective way to understand, share and develop individual and organisational values.

Table 11 Three Versions of Values Statements

Schwartz Values Categories	Code	Bottom-Up Values Statements	Top-Down Values Statements	Final Values Statements	Final Behaviour Statements
Universalism	V1	We care about the effect that our work has on the environment, both within the workplace and on society as a whole.	Customer - we treat customers the way we would want to be treated.	Customer - We treat customers the way we would want to be treated	1. Do what is right for the customer 2. Build enduring relationships 3. Always make it easy to do business with us 4. Communicate effectively and regularly 5. Always say thank you
Others Orientated	V2	We believe that loyalty must not be taken for granted. We underpin everything we do with honesty and integrity. We treat others the way we expect to be treated ourselves. We deliver exceptional service to our clients by trusting and believing in our nennie. We strive to exceed expectations.	People - we care for our people through a challenging, supportive working environment. Excellence - we strive for quality through the development of our people and systems. Environment - we care about the effect we have on the environment in which we work.	People - We care for our people through a challenging and supportive working environment	1. Encourage entrepreneurship and think creatively 2. Respect the opinions of others 3. Promote open and constructive feedback 4. Manage performance firmly and fairly 5. Recognise and reward achievement
Conformity	V3	We take pride in our work.	Honesty - we conduct our business with integrity.	Excellence We strive for excellence	1. Exceed the expectations of customers and colleagues 2. Conduct all business with integrity and professionalism 3. Think "Team" 4. Encourage learning and self-development 5. Embrace change willingly
Security	V4	We balance work with personal wellbeing and promote healthy living.			
Achievement	V5	We recognise and reward our successes and achievement.			
Hedonism	V6	We encourage teamwork and deliver success through a motivational and supportive working environment.			
Stimulating Activity	V7	We embrace change by developing our people and our service(s). We encourage individuals to reach their full potential. We are a united and energetic company with an innovative and challenging approach			
Self Direction	V8	We value freedom of expression.	Sustainability - We care about the effect we have on the environment	Sustainability - We care about the effect we have on the environment	1. Minimise the environmental impact of our business 2. Ensure working environments are healthy and safe 3. Cut out extravagance and waste 4. Minimise our carbon footprint 5. Promote environmental awareness
Overarching Values		Enjoy work Overall satisfaction Promoting self respect			

LIMITATIONS OF THE RESEARCH

There are limitations to be considered in evaluating this study. Firstly, the SVS instrument could reduce the chance of situational variables having a strong impact on the respondents. However, it does open the argument that the mostly positive-sounding value categories could create bias because respondents may be inclined to choose a more utopian answer not reflected in their actual behaviours. The anchoring of the response scale and the confidentiality of the questions would mitigate against this, but further consideration of possible biases is necessary.

Secondly, although the SVS is a widely validated tool and can yield meaningful data that are otherwise very difficult to collect, it should not be used in isolation. Values have cognitive, affective and behavioural features (Allport, 1961; Rokeach, 1973) which are subject to relative social constructs. Indeed, Schwartz (n. d.) claims that behaviour entails a trade-off between competing values. Almost any behaviour has positive implications for expressing, upholding, or attaining some values, but negative implications for the values across the structural circle in opposing positions. Furthermore, people's opinions towards values do not necessarily reflect their espoused values at work. Therefore, potential problems exist when the SVS treats each of the values as stable categories regardless of the social context. Triangulation through other devices, such as the workshops, can help reduce the likelihood, but a better way would be observing values in action and comparing these with espoused values, which would require a more ethnographic approach beyond the scope of this study.

Thirdly, whilst the case study provided a way to identify organisational shared values, it is important to note that strongly shared organisational values may not always be a positive thing. Kotter and Heskett's (1992) study of 207 US firms found that an organisation's strong values can drive either high or low performance, depending on the ability to align with the market and adapt strategies and practices accordingly. If the members of the organisation share the

view that certain values are less important (e.g. unity with nature), there may be dysfunctional implications for group practices, e.g. ignoring the negative impact on the environment of their business practice. Furthermore, the sharing of values may sometimes introduce biases by encouraging a focus on certain personal needs and priorities or socially desirable preferences at the expense of others. Mullen et al. (1994) argue that the more cohesive the group, the easier it might be for the individual to become 'lost in the crowd' and thereby cease to engage in self regulated attempts to match to behavioural standards, resulting in more pressure to conform to group norms and suffer from group think² (Langfred, 1998). In addition, Tosi et al. (2000) argue that the cohesive groups may become very inward-facing and tend to overvalue their own behaviour and accomplishment and to undermine outside groups. All of this may impair effective decision-making and problem-solving. These negative impacts of shared values in turn highlight the importance of developing and understanding organisational values in an appropriate manner, as well as guiding, monitoring and re-evaluating them on a regular basis, to make sure they address the current needs of the organisation and the society it is situated in.

A further observation is that the single company nature of the study precludes any conclusions about the expansion of the findings to the broader industry. In fact the intention of this study was to establish the link between personal and organisational values to enable employees to work in the same direction, rather than generalise some core values that employees need to believe. However we could hypothesise that a UK company providing similar professional services might share similar espoused values priorities but have quite a different set of 'lived values', i.e. behaviours.

The above limitations suggest areas for future research. The values statements will be of limited use if the organisation fails to put them into practice. Further research is required to understand how to realise these values and if necessary

implement organisational change. One avenue that might be fruitful is to evaluate current business practices to reveal the gap between values and behaviours, i.e. 'words' and 'deeds', and then identify mechanisms for improvement. It might also be worthwhile involving case organisation's clients, suppliers or partnering organisations into the study to explore how values affect inter-organisational collaboration and corporation.

CONCLUSIONS

Articulating organisational values is an important, but not easy, task. A set of well-shared organisational values can help empower people and improve organisational performance. Whilst considerable uncertainty exists as to how to go about this, the approach presented offers practical guidance on how to reveal employees' personal values and hence formulate collective organisational values statements. It is arguably a unique but natural way to developing organisational values, which differs from other approaches in the following respects:

Schwartz's values theory and methodology has been successfully deployed in an organisational context bringing a number of business benefits, in contrast to all the comparative intercultural research applications. The survey provided insight into the employees' values system, and raised people's awareness in terms of values priority, their diversity and the interrelationships between these values. It is believed that this instrument can make values visible, comparable and, more importantly, help demonstrate the strength and alignment (or otherwise) of the values within the organisation, from which core organisational values could be identified and understood. Values perspectives were revealed that might otherwise have remained unseen. Furthermore, the survey results serve as a useful platform to initiate further debate and exploration of organisational values.

Unlike the more common senior-management driven approach to defining organisational values, this bottom-up approach was owned by all members of the organisation. The survey helped participants become self-conscious and articulate

about their own values and the following workshop discussions and communication between the values group and staff members enhanced awareness and understanding. Ideas and thoughts were encouraged, challenged and advanced throughout the process. As a result, an organisation-wide values dialogue was set in motion among staff to speak openly about their meaning in the workplace, and to voice concerns. By discussing what is valued in their work and how it should be carried out, people's values and associated behaviours became meaningful in an organisational context. This would be very difficult to achieve in the traditional top-down approach, where the senior management are responsible for developing the organisational values with the staff being isolated from the process.

As a result, the process helped generate a sense of responsibility to ensure that values were identified, understood, integrated and lived. It empowers people in the organisation and connected them to the organisation's future. The derivation of the values statements formulated a values framework which can be used to make sure they and the organisation are on track. It reminds people of values they do not share, which is also important.

Furthermore, this approach helped change the notion of the traditional single leadership model, where top management held all responsibilities, to a distributed model where everyone is responsible for operational conduct. It helped the management realise that human values could form the basis of business strategy, and created a platform from which to define the organisational vision, mission and objectives.

Nevertheless, our experiences also revealed some issues which require special attention. Firstly, it is crucial yet difficult to create the right value-sharing environment. People need to be taught how to listen and be heard. Continuous encouragement and confidentiality assurance are required to nurture participation. Secondly, the development and promotion of a value-oriented

culture has to be driven from the top. This will not only smooth the process, but also provide understanding, ownership and support for the initiative. On the other hand, senior management must understand that they should not engage in such an endeavour unless they are committed to building on the results; lack of follow-through after raising expectations could be more damaging than not starting in the first place. Thirdly, a values communication programme must be put in place to promote the key organisational values and explain ways to assimilate them into day-to-day work. More importantly, it should reassure employees that they are involved in a long-term dialogue, not a quick fix or superficial exercise. Last but not least, identifying organisational shared values is by no means aimed at excluding values diversity. On the contrary, the process made the divergence of values explicit and facilitated mutual understanding.

The experience of shaping the collective organisational values based on consultation with, and engagement of, employees was a positive one. Personal values must be made clear before they can be communicated and linked into collective organisational values. The derivation of an organisational values statement is a process to help employee explore the real meaning of their values at work, invite people's thoughts, and form a values framework within the organisation. We have presented a structured method derived from Schwartz's values theory that can facilitate the alignment of individual and organisational values and hence be an effective way for shared values to emerge, evolve and enter into the corporate conscience.

NOTES

1. Data are said to be ipsative when the sum of the scores measured over the attributes for each individual equals a constant (Clemans, 1966).
2. Group think is 'a mode of thinking that people engage in when they are deeply involved in a cohesive group when the members' strivings for unanimity override their motivation to realistically appraise alternative courses of action' (Janis, 1972).

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APPENDIX 3: PAPER THREE (JOURNAL, PUBLISHED)

Zhang, X., Austin, S. A. and Glass, J. (2008) Understanding values diversity within the organisation: A case study in UK construction. The International Journal of Diversity in Organisations, Communities and Nations, Volume 8, Issue 5, CGPublisher, Australia.

Understanding Values Diversity within the Organisation: A Case Study in UK Construction

Abstract Any increasing diversity in a workforce necessitates a better understanding of individual and team differences in the organisation, as well as how such differences affect the organisation itself. Previous research has highlighted that diversity in people's values will have consequences for an organisation, and is therefore critical in the area of diversity management. Nevertheless, understanding values diversity within the organisation is not an easy task. The difficulties are exacerbated by the dearth of literature offering practical guidance. The case study presented has been conducted in a UK construction company using Schwartz's theoretical framework of human values as a framing device. Employees' values profiles were collected and analysed through an organisation-wide survey. The process helped identify shared values, and highlighted differences between various sub-groups. It made the divergence of values explicit, thus facilitating mutual understanding within the organisation. It is argued that values diversity should be encouraged and respected within a collectivistic culture, enabling a heterogeneous workforce to work harmoniously toward their common goals, maximising the contribution of each member, and ensuring fair treatment for all irrespective of background. In addition, Schwartz's circumplex model of values and its associated survey instrument are helpful framing devices to reveal values diversity and facilitate values communication within the organisation.

Keywords Case Study, Diversity, Organisation, Survey, Values

Introduction

During the 21st century, an important trend affecting the workforce is the increasing diversity (Lavaty and Kleiner, 2001), which is a phenomenon that has a wide array of effects within the workplace and society in general (Koonce, 2001; Stark, 2001; Williams and O'Reilly, 1998). In order to create an organisational environment that allows employees to reach their full potential in pursuing the organisational goals, many academics and practitioners agree that organisations should aim to manage diversity effectively rather than simply value it or rely on affirmative action policies (Sadri and Tran, 2002). This necessitates a better understanding of individual and team differences in the organisation, as well as how such differences affect the organisation itself.

Research examining diversity within the organisation has often focused on the surface-level, e.g. demographic diversity among the workforce. However, the deep-level, i.e. values diversity, is claimed to have significant consequences for an organisation (Harrison et al., 1998; Jehn et al., 1999; Owens and Neale, 1999), is therefore of importance and requires specific attention. Nevertheless, understanding employees' values difference is not an easy task. The difficulties are exacerbated by the dearth of literature offering practical guidance.

The case study presented has been conducted in a UK construction company using Schwartz's theoretical framework of human values as a framing device. Through an organisation-wide values survey, employees' values profiles were collected, analysed, presented and debated. The study helped identify shared values, and highlighted the diversity between various sub-groups. This approach offers a viable method for exploring and managing values diversity within the organisation.

Diversity Management

Diversity management is a strategic business issue for many organisations (Dodds, 1995). It emerged in the USA (Kandola and Fullerton, 1994; Wilson and Iles, 1999) and became very influential in the UK in the 1990s (Mavin and Girling, 2000; Seymen, 2006).

Definitions of Diversity

Diversity can be defined as a mixture of people with different group identities within the same social system (Fleury, 1999). It refers to any attribute that happens to be salient to an individual that makes him/her perceive that he/she is different from another individual (Williams and O'Reilly, 1998). Patterson (1990) defines it as the 'state of being diverse, that is, different, unlike, various'. Cox (1993, p. 6) expresses diversity in broad terms as 'a mix of people in one social system who have distinctly different, socially relevant group affiliations'. Further, Thomas (1996) suggests that diversity relates to everybody and is multidimensional. He considers diversity as a mixture of visible differences (e.g. race, gender, or age) and less visible differences (e.g. educational levels, sexual orientation, ways of thinking, or personal values and belief systems) (Thomas, 1991).

These definitions make it clear that diversity is a broad concept which encompasses many sources of differences within one social system. This may include culture, race, geographic origin, ethnicity, gender, nationality, functional or educational background, physical and cognitive capability, language, lifestyles, values and beliefs, sexual orientation, physical abilities, social class, age, socio-economic status, and religion (Dessler, 1998; Ferdman, 1995).

Diversity Management in the Workplace

In the workplace, the effects of diversity among team members have been shown to impact upon many aspects of work, especially work-related behaviours and outcomes. Over the years this has attracted much attention from both academics and practitioners.

Perspectives on workforce diversity vary. Proponents believe that dissimilarities between individuals give rise to varied ideas, perspectives, knowledge and skills which can lead to greater creativity and innovation, improved decision-making and problem solving (Chatman et al., 1998; Cox, 1991; Mannix and Neale, 2005). This position is supported by a number of empirical studies (e.g. Ely and Thomas, 2001; Jehn et al. 1999; Watson et al., 1993).

Conversely, sceptics see diversity as a problem and a difficult issue to manage. They believe that the biases between individuals may result in breakdowns in communication, decreased group integration and collaboration, and higher turnover (Brickson, 2000; Cox, 1991; Gratton and Erickson, 2007). Hopkins et al. (1994) also suggest that rapid and significant increases in work force diversity will result in a high degree of value incongruence.

The debate between these contrasting viewpoints leads to another stream of thought which suggests that diversity is a double-edged sword. In some tasks it can help improve group performance, but in other cases disrupt group processes (Guzzo and Dickson, 1996; Milliken and Martins, 1996; Pelled et al., 1999).

The above viewpoints delineate some of the difficulties and potential benefits of a diverse workforce, and highlight the importance of effective diversity management in the workplace. Some define the term 'diversity management' as ensuring that all people maximise their potential (Kandola and Fullerton, 1994; Kandola, 1995; McDougall, 1996). Others give detailed definitions within an organisational context. Bartz et al. (1990, p. 321) consider it involves

'understanding that there are differences among employees and that these differences, if properly managed, are an asset to work being done more efficiently and effectively'. Ivancevich and Gilbert (2000, p. 75) refer it to 'the systematic and planned commitment by organisations to recruit, retain, reward, and promote a heterogeneous mix of employees'. According to Cornelius et al. (2000), managing diversity means recognise the worker's individuality and believing in the benefits of diversity to the organisation.

Therefore, diversity management is a business strategy that aims to benefit from a diverse workforce by effectively managing the differences among employees. Those interested in this topic have focused on the relationship between diversity and work group performance. It is through these research studies that the importance of understanding values diversity in the organisation is highlighted.

Values Diversity

Investigations of diversity and work group performance have largely been "black box" studies (Lawrence, 1997), which fail to measure intervening process variables. Williams and O'Reilly (1998) reviewed 40 years of diversity research and concluded that there are no consistent, identifiable effects of diversity on organisational performance. They proposed that a more complex framework and conceptualisation of the nature of diversity are needed to study the impact of diversity.

Some theorists have agreed to describe diversity using readily detectable attributes (e.g. race/ethnicity, sex, age), i.e. surface level diversity and underlying, deep level diversity (e.g., attitudes, values) (Jackson et al., 1995; Milliken and Martins, 1996). Harrison et al. (1998) argue that the length of time group members work together weakens the effects of surface-level diversity and strengthens the effects of deep-level diversity as group members have the opportunity to engage in meaningful interaction.

Further, Jehn et al. (1999) classified diversity into three categories: informational, social category and value diversity. From a field study of 92 workgroups, they explored the influence of these three types and found that, whilst informational diversity positively influenced group performance, and social category diversity positively influenced group member morale, value diversity decreased satisfaction, intent to remain, commitment to the group and can lead to task, process and relationship conflicts. They therefore claim that 'value diversity, although often not immediately discernible, becomes more important as a predictor of group performance over time, while age and gender diversity, characteristics that are readily apparent, become less relevant over time'. Hence 'it is the diversity associated with values, and not social category, that causes the biggest problems in and has the greatest potential for enhancing both workgroup performance and morale'. Similarly, Owens and Neale (1999) conducted a study of research and development teams, and the results reinforce the importance of low value diversity on workgroup performance over time.

All of this supports the proposition that to assess a group's diversity perspective, researchers should aim to assess not only the group's externally discernible characteristics, but more importantly, those internally enacted values and beliefs as well (Barley, 1991; Martin, 1992; Schein, 1984). Unfortunately, these values often remain concealed or unconscious, and tend not to be communicated within organisations. Managers and employees of many organisations are often unaware of the values they and their colleagues possess and may tend to misjudge them, which can cause friction and introduce tensions at work.

The aim of this exploratory study is to present the process and findings of a values study conducted in all the UK offices of a global construction management services organisation. Employees' values similarities and differences were revealed through a questionnaire survey based on Schwartz's values framework.

It made the similarities and divergence of values explicit, thus offering a means to facilitate the management of values diversity.

Case Study

The Organisation

The study was conducted in all UK offices of a global construction management services organisation. The recent change from partnership to Limited Liability Company challenged the company to establish a cultural identity compatible with its new legal status, and offered opportunities to set a vision for its future. The senior management set out the intention to adopt values-based management by identifying a set of authentic organisational values that are formulated around the commonly held values of the employees. An organisation-wide values study was conducted (see Zhang et al., 2008), through which the similarities and differences of employees' personal values were identified, and values diversity within the organisation analysed.

Theoretical Framework

This study examined values through the lens of Schwartz's values theory (Schwartz, 1992). Based on universal requirements of human existence, and from samples of more than 60,000 individuals from over 60 nations, this theory identifies ten motivationally-distinct values as shown in Figure 1. Schwartz (1992) proposed a circumplex model, which addresses the dynamics of conflict and congruence among these values. He pointed out that adjacent value types are postulated to be most compatible, and a greater distance between values types indicates decreasing compatibility and greater conflict. The ten categories could be grouped into four higher order groups, which demonstrate two bi-polar dimensions, where 'openness to change' contrast to 'conservation' values, and 'self-transcendence' contrast to 'self-enhancement' values.

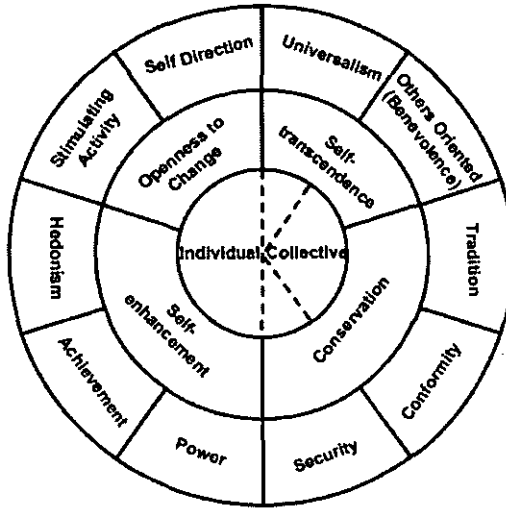


Figure 1: A Universal Values System/Structure Adapted from Schwartz (1992) (After Mills et. al., 2006)

Method

The questionnaire was adapted from the Schwartz Values Survey (SVS) (Schwartz, 1992) which measures individuals' opinions of the relative importance of 56 generic values. Respondents were asked to indicate, using a nine-point Likert scale from -1 to 7, the importance of each item in their working lives. Respondents were also asked to rate one supremely important value 7 and one least important value -1, 0 or 1 on each sheet before rating other items. This anchored the response scale thus enable values to be assessed independently of one another.

A scale-use correction process were undertaken using the individual's mean rating of all value items as a covariate to center each participant's responses (Schwartz and Littrell, 2007). These centered value scores (CVS), rather than the raw scores, were then used in the analysis.

Values Survey Results and Discussion

The questionnaire was sent to every UK employee of the company (456 in total) based in its 16 UK offices in mid-2005 and anonymous responses returned for confidential analysis. A total of 411 (90%) responses were retained for analysis.

To examine and interrogate the survey results, the CVS of each respondent, the mean CVS and standard deviation across the whole organisation were plotted in a radar diagram (Figure 2). These were emailed to each participant with notes to facilitate understanding. Many employees found the chart informative. It not only enabled them to visualise their own values and identify the interrelationships between these values items, but also facilitated the comparison between their personal values and those of the organisational average. It effectively engaged employees in a values dialogue and activated people's values within the organisational context.

Data analysis revealed the values priority and consensus among organisational members. The mean CVS of Schwartz's high-level values categories are calculated and presented in Figure 3.

Figure 3 suggests that within the organisation, there was a substantially more positive feeling about 'Others Oriented', 'Achievement' and 'Conformity' values, together with a considerably negative feeling about 'tradition' and 'power'. Revealing these organisational values priorities helped the employees to understand their shared values and generated a sense of responsibility to ensure that values were identified, understood, integrated and 'lived'. The values perceived as of high priority across the organisation were discussed in six follow-up workshops and evolved into a set of organisational values (Zhang et al., 2008). This enhanced values congruence within the organisation, where individual values coincide with values at the organisational level.

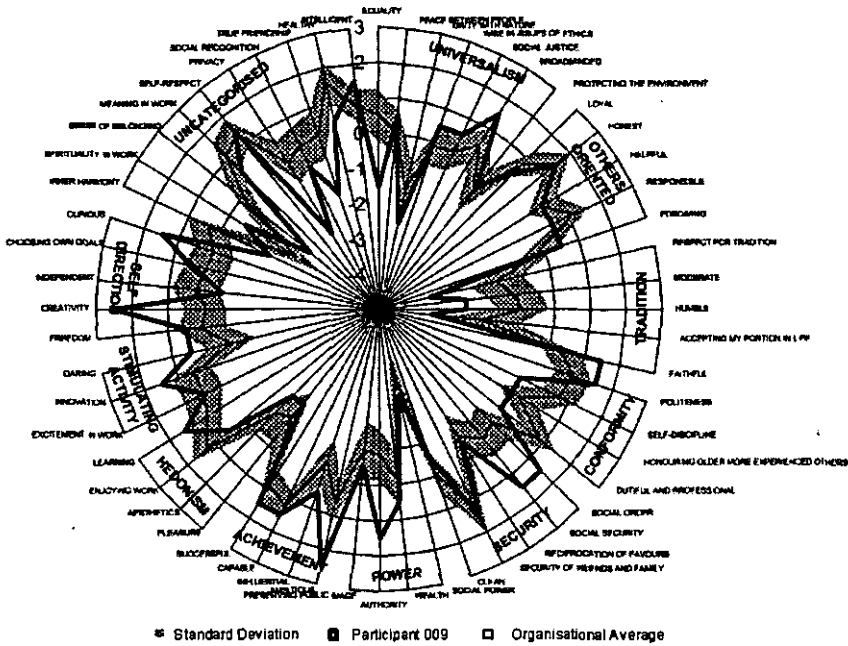


Figure 2: Example of an Individual's Values Chart

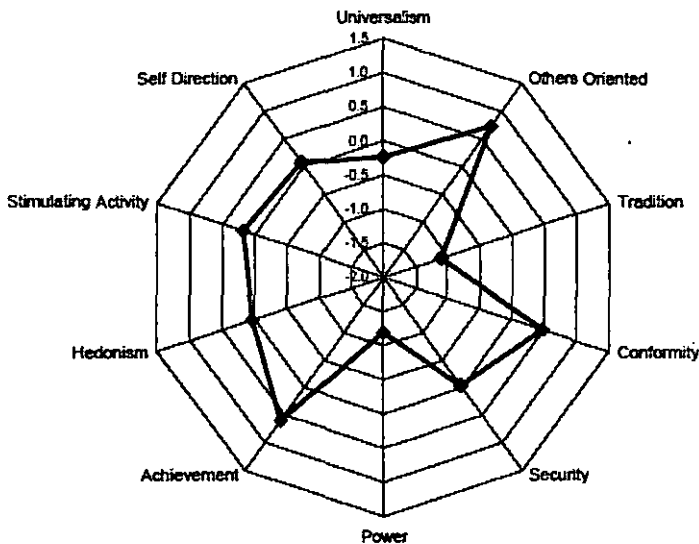


Figure 3: Organisational Mean CVS of Values Categories

Further analyses investigated the differences between various sub-groups (see Table 1 for examples). Due to some respondents choosing not to provide certain background information, the responses range from 362 to 381 (80 to 84 percent). The mean CVS of groups were calculated and one-way analysis of variance test (ANOVA) revealed the statistic significance of the results and hence major differences.

Table 1: Sample Characteristics of the Analysis

Categories	Number of Responses analysed	Percentage within organisation
Age		
<26 years of age	32	7%
26-35 years of age	105	23%
36-55 years of age	179	39%
>55 years of age	62	14%
Gender		
Female	86	19%
Male	293	64%
Management Level		
Directors	27	6%
Divisional Directors	27	6%
Associates	48	11%
Others	280	61%
Geographical Location		
UK North	319	70%
UK South	92	20%
Professional Discipline		
Project Manager	78	17%
Cost Manager	187	41%
Management Consultant	20	4%
Others	77	17%

The variations across the age groups were analysed through an ANOVA. Whilst these age groups possess similar views towards 'universalism', 'other oriented', 'conformity', 'achievement' and 'self direction', statistically significant differences were found in the values categories listed in Table 2. It appeared that the older employees (>55 years old) gave a significantly lower score to 'hedonism', 'power' and 'stimulating activity' than their younger colleagues, and gave much higher scores to 'tradition' than the 26-35 age group, indicating they are not very open to changes and have less interest in self-enhancement. Older groups also generally consider 'hedonism' of less importance than the younger groups.

Meanwhile, the youngest (under 26 years old) and oldest (above 55 years old) groups give a much higher score to 'tradition' than those between 26 and 35. Whilst it is understandable that older people would generally like to stick with traditions, the relatively higher scores among those under 26 years old is interesting. Further discussion in a follow-up workshop revealed that young people are curious about what happened in the past and it is the mysteriousness that attracts their attention. Furthermore, 'security' is of greater importance to staff aged 36 to 55 than those between 26 and 35. One explanation is that most people in 36 to 55 age group have well established family and career, and they are keen to protect these from any risks.

Table 2: Significant Differences between Age Group

Values categories	F (3, 374)	p (<0.05)	Eta Squared	Group with significantly high score	Group with significantly low score	Score difference
Hedonism	5.204	0.002	0.04	<26	>55	0.4
				26-35	>55	0.3
				26-35	36-55	0.2
Tradition	4.474	0.004	0.04	<26	26-35	0.4
				>55	26-35	0.3
				36-55	>55	0.4
Power	4.198	0.006	0.03	26-35	>55	0.4
				26-35	>55	0.4
Stimulating Activity	3.768	0.011	0.03	26-35	>55	0.5
Security	2.969	0.032	0.02	36-55	26-35	0.2

The differences between female and male employees' values perception are shown in Figure 4 and Table 3. Generally speaking, the mean scores of the two groups display similar trends. However, as shown in Figure 4, value items related to 'openness to change' and 'self-enhancement' are, with some exceptions, scored higher by male employees. Conversely, the values related to 'self-transcendence' and 'conservation' are more favoured by females. Table 3 also shows that male employees gave significantly higher scores to 'power' than the females, while female employees score 'universalism' and 'conformity' higher than their male colleagues. However, as evident in small effect size (eta squared values range from 0.01 to 0.03), these differences are not as significant as those between other groups, which suggests that values differences between gender

groups are minimal. This findings support Schwartz’s hypothesis that the correlations between values and gender are very weak (Schwartz et al., 2001).

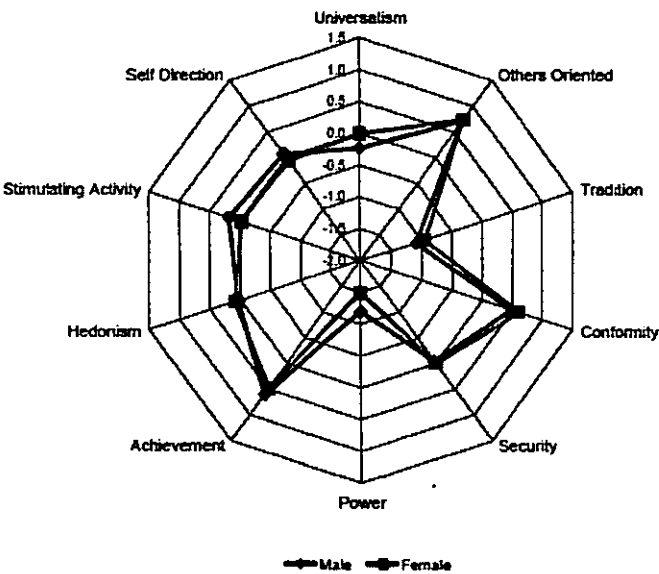


Figure 4: Values Differences between Genders

Table 3: Significant Differences between Genders

Values categories	F (1, 377)	p (<0.05)	Eta Squared	Group with significantly high mean score	Group with significantly low mean score	Mean score difference
Power	13.171	0.000	0.03	Male	Female	0.3
Universalism	11.725	0.001	0.03	Female	Male	0.2
Conformity	4.390	0.037	0.01	Female	Male	0.2

The differences between directors and other staff, as shown in Table 4, reveal some interesting facets. The top two levels of management (directors and divisional directors) have very similar priorities. This may be related to how the senior managers were selected within the organisation. Whilst all the groups gave very similar scores to 'security' and 'others oriented' values, the major differences emerge between the senior managers and other staff, with the middle management, i.e. associates, aligning with one or the other. As shown in Table 4, the managers gave significantly higher scores on 'achievement' than the other staff ($P<0.0005$). The effect size eta squared values is 0.09, which in Cohen’s

(1988) terms would be considered a medium effect size. With a large enough sample (in this case $N=381$), this difference can be considered as significant.

Similarly, compared with other staff and/or the associates, the senior managers gave significantly higher scores to 'stimulating activity' and 'power' and significantly lower score to 'conformity' in comparison to other staff. This indicates that the senior managers are generally more open to change and focusing on self enhancement, whilst other staff are more conservative. According to Sosik (2005), managers who display charismatic leadership grounded in openness to change, collectivistic work, and self-enhancement values can promote extra effort and extra role performances that fully engage employees.

Although the findings in this organisation seems to be positive in terms of managerial values, it should also be noted that some managers may claim some values to be important but fail to integrate them in their behaviours. Therefore, it is very important that managers should possess and act upon these values in an authentic manner. Overall, revealing these management level differences will facilitate mutual understanding between the managers and their staff, and form a base to shape the company's strategic management in the future.

Table 4: Significant Differences between Management Levels

Values categories	F (3, 377)	p (<0.05)	Eta Squared	Group with significantly high score	Group with significantly low score	Score difference
Achievement	12.350	0.000	0.09	Directors	Others	0.6
				Divisional Directors		0.5
				Associates		0.3
Conformity	9.385	0.000	0.07	Others	Directors	0.5
					Divisional Directors	0.5
Stimulating Activity	8.405	0.000	0.06	Directors	Others	0.6
				Divisional Directors		0.6
				Directors	Associates	0.6
				Divisional Directors		0.6
Power	6.157	0.000	0.05	Directors	Others	0.6
				Divisional Directors		0.6

In the UK, there seems to be a North-South divide which often refers to the economic and cultural differences between southern and northern parts of the country. To investigate the values differences between these two broad geographical zones, data from the UK south offices and the UK north offices were

compared (see Table 5). It appeared that UK North office staff rated 'tradition' much higher than UK South office staff and rated 'power' much lower than UK South. However, while the differences exist, the effect size was small, which demonstrates that the geographical differences are not as significant as those associated with age and management level.

Table 5: Significant Differences between Geographical Zones

Values categories	F (1,409)	p (<0.05)	Eta Squared	Group with significantly high score	Group with significantly low score	Score difference
Tradition	10.529	0.001	0.03	UK North	UK South	0.3
Power	5.314	0.022	0.01	UK South	UK North	0.2

As a multi-disciplinary company, identifying the values differences between people from different professional backgrounds could be useful in harmonising the teamwork. There are four major groups within the organisation, i.e. project managers, cost managers, management consultants and supporting staff (e.g. administrators, accountants and IT technicians). As shown in Table 6, statistical analysis revealed that the two dominant groups, project managers and cost managers, rated 'power' much higher and 'universalism' much lower than supporting staff.

Table 6: Significant Differences between Professional Disciplines

Values categories	F (3, 358)	p (<0.05)	Eta Squared	Group with significantly high score	Group with significantly low score	Score difference
Power	3.372	0.019	0.04	Project Managers	Others	0.5
				Cost Managers		0.4
Universalism	3.089	0.028	0.03	Others	Cost Managers	0.3
					Project Managers	0.3

In summary, the above analysis demonstrates that, whilst gender and geographical differences are minimal, significant age and discipline differences were found within the organisation. Even greater differences were found between different management level groups. Across all these subgroups, no significant differences were found in 'self direction' and 'others oriented' values. However, the groups did have significantly different views on the values category of 'power'. Male employees, working as project managers or cost managers, aged

between 26 and 55, senior managers and those from UK south, considered 'power' of much greater importance than their colleagues.

By revealing these similarities and differences of employees' values proposition, the research helped establish a useful platform for future diversity management. Employees were encouraged to focus on the values that are of high priority across the organisation so that a truly collectivistic culture could be established. Under this umbrella, values differences found between subgroups provide valuable information to facilitate mutual understanding between individuals and groups. This could help reduce the level of conflict and allow the organisation to benefit from the differences of cultures, experiences and ideas. However, it is worth noting that the emphasis should always be on the commonly shared values rather than the values differences among employees, so that the employees are able to stay focused on what is important instead of worrying about how they are different to one another. We agree with McMillan-Capehart (2005, p.498) that the collectivistic culture is 'the overall guiding power that allows diversity to result in positive outcomes'. By implementing individualistic socialisation tactics within a collectivistic culture, organisations can benefit from employees' backgrounds and experiences, while promoting teamwork and a cohesive organisation.

In addition, the results enabled senior management to recognise the particular priorities among the employees, which revealed some root causes of existing conflicts, and informed future business strategies, such as team formation and collaboration, recruitment and promotion, and employee care and development. Indeed, the more we know about these values priorities and differences, the easier it is to understand and accommodate them within the organisation, which would lead to positive impacts on levels of motivation and job satisfaction among individuals, and hence the improvement in business performance.

Conclusion

Given that individuals are unlikely to be willing to leave their differences outside the doors of the workplace (Thomas, 1991), an organisation's ability to systemically manage diversity is clearly important, particularly in the current business environment where a diverse workforce is almost unavoidable. Previous research has highlighted that managing values diversity, *inter alia*, is crucial in diversity management. We have argued that this requires a thorough understanding of personal values before they can be communicated, compared and effectively managed. The case study presented here offers a way to reveal employees' values similarities and divergence within the organisation through a structured method derived from Schwartz's values theory. Understanding values diversity within the organisation could enable the heterogeneous workforce to work together harmoniously toward their common goals, maximise the contribution of each member, and ensure fair treatment for all irrespective of background.

In addition, it has been made clear that Schwartz's circumplex model of values and associated survey instrument are helpful framing devices to reveal values diversity and facilitate the communication of values within the organisation. A systematic and fine-grained analysis of human values helped raise awareness in terms of values priority, values diversity and the interrelationships between these values, and the approach described appears to be an effective instrument in managing values diversity.

Nevertheless, there are limitations to this study. The mostly positive-sounding value categories could create bias because respondents may be inclined to choose a utopian answer which is not reflected in their behaviours. The anchoring of the response scale partly addresses this, and the confidentiality of the questions would mitigate against this, but further consideration of possible biases is

necessary. In addition, the single company nature of the study precludes any conclusions about the expansion of the findings to the broader industry.

Values diversity is a contentious but important subject of debate in diversity management. This study offered one avenue to move towards effective values diversity management in the workplace. By revealing the similarities and differences of employees' values proposition and establish a collectivistic culture based on employees shared values, a 'diversity friendly' environment could be created which would benefit the organisation in the long term.

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APPENDIX 4: PAPER FOUR (READY TO SUBMIT)

CREATING THE SUSTAINABLE WORKPLACE: A REVIEW OF RELEVANT GUIDANCE

Abstract The concept of sustainable development is recognised increasingly at various levels of society and there appears to be a new impetus for employees and businesses to apply this to the workplace context in terms of design and organisation. This study reviews sources of practical guidance and offers direction for refining the concept of sustainable workplaces. The available guidance documents are systematically categorised, compared and synthesised within a clear framework, to facilitate easy understanding and practice. Nevertheless, as an emerging and fast developing area, the research into sustainable workplaces is still fragmented and unbalanced. The majority of guidance places emphasis on environmental impacts arising from workplace activities, and aims to promote environmental awareness among the workforce. Whilst this may be appropriate in itself, it is of concern that other key aspects of sustainable development (i.e. social and economic aspects) have been overlooked to some extent. It is argued therefore that a holistic and balanced approach to developing sustainable workplaces, would be more appropriate, and in fact, is needed urgently. Based upon the review of relevant guidance, a conceptual framework is proposed with the aim of scoping the key issues in the SD of workplaces.

Keywords Ecological sustainability, Guidance, Human sustainability, Sustainable development and Sustainable Workplaces.

INTRODUCTION

In recent years, the notion of sustainable development (SD) has become well known and recognised increasingly at all levels of society. The classic definition of SD was published by the World Commission on Environment and Development (WCED) in 1987 as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (WCED, 1987, pp. 43.) This definition gave a focus to SD by appealing for equality between generations and refers to the reconciliation of social justice, ecological integrity and the well being of all living systems on the planet (Moore, 2005).

Since 1987 the reach of SD has extended beyond government into the world of business and beyond. The main catalyst for this was the publication of the Rio Declaration and Agenda 21 (UN Conference on Environment and Development, 1992), which reinforced the policies that affect the flow of global finances and trade, and are crucial for business. At present, the role of the business community in addressing SD is seen to be particularly important. According to Hart (1997), 'the responsibility for insuring a sustainable world falls largely on the shoulders of the world's enterprises, the economic engines of the future'. Indeed, as corporations are the main generators of wealth and powerful institutions in society, they are well placed to use their influence to accelerate progress toward sustainable development (Usui, 2003; Rotheroe et al., 2003). On the other hand, corporations are under pressure to comply with more stringent legislation and to satisfy other demands, such as consumer preferences, relations with local communities, and investor requirements, as exemplified in the concept of corporate social responsibility (CSR). Corporations started to realise that they have to take responsibility for nature and society, because without these there could be no business (Elkington, 1997).

Recently, the UK Turnbull Report has emphasised the need to build reputational capital, pointing out that 'a company's social, ethical and environmental working practices can make or break a brand name and affect share prices' (quoted in Preston, 2000). Similarly, the World Business Council for Sustainable Development (WBCSD) believes that the leading global companies of 2020 will be those that provide goods and services and reach new customers in ways that address the world's major challenges – including poverty, climate change, resource depletion globalisation and demographic shifts (WBCSD, 2006). In other words, a company's market position will be determined by its performance against SD criteria. Seemingly sustainable behaviours would give them not only legitimacy, but also provide them with new opportunities for learning and new opportunities for developing their strategy (Zadek, 2007, p.246). Understandably then, there is a widespread and growing interest in SD among business actors.

As part of this broad movement towards sustainability, there is a strong desire amongst both employees and businesses to apply the principles of SD to the business and develop their workplaces in a more sustainable manner. More and more employees have strong expectations of workplace safety and heightened environmental awareness, and are searching for more meaningful work, particularly for work that makes a social and ecological contribution as well as providing an income (Dunphy et al, 2003, p.55). In fact, as claimed by Lund (n.d.), the need for such change is urgent, 'since some of the sustainability efforts deal with very extensive social and global problems that are not included in traditional strategies of an eco-friendly company or a work place that lives up to social standards and occupational health and safety standards.'

To address these needs, a series of practical guidance documents have been published by various bodies. However, little research has been conducted to compare or analyse this guidance. This review seeks to provide insight into some of the key guidance; categorise, compare and synthesise the sources

systematically within a clear framework, with the aim to facilitate easy understanding and practice. It also reveals the overlooked aspects which require further research, with a view to highlighting the importance of developing the workplace in both human and ecological sustainability directions.

DEFINING THE SUSTAINABLE WORKPLACE

Sustainable Development

The term sustainable development is often used synonymously with sustainability. Despite the widespread interest in SD or sustainability, their precise meanings remain elusive. According to Chambers Concise Dictionary (2004), the word 'sustain' has several meanings: to hold up; to bear; to support; to provide for; to maintain; to sanction; to keep going; to keep up; to prolong; to support the life of. Many argue that, due to the very broad meaning of the word 'sustain', SD could be used to mean almost anything (Lele, 1991). Bell and Morse (1999, p.5) argue that 'the precise meaning of sustainable, and what it embraces, varies depending upon who is using it and in what context'. While the vague definition of SD may seem to be a problem to some, others believe this is not all bad. Daly (1991, p.248) argues this has allowed 'a considerable consensus to evolve in support of the idea that it is both morally and economically wrong to treat the world as a business in liquidation'. Bell and Morse (1999, p.10) claim this created the flexibility which allows the concept to 'attain the heights that it has', and believe that having a single definition that one attempts to apply in all instances could be both impractical and dangerous.

The sheer proliferation of definitions of SD is evidence of contestability (Carter, 2001, p.197). Fowke and Prasad (1996) identify at least 80 different, often competing and sometimes contradictory definitions; Parkin et al. (2003) report over 200 definitions. In fact, definitions have emerged continuously since 1987. In the UK, the Government defines SD as 'ensuring a better quality of life for

everyone now and for the future generations to come' (Department for Environment, Food and Rural Affairs (DEFRA), 1999). The sustainable development charity Forum for the Future defines SD as 'a dynamic process which enables all people to realise their potential and to improve their quality of life in ways which simultaneously protect and enhance the Earth's life support systems' (Forum for the Future, n. d.). Similarly, British Standard BS8900: 2006 defines sustainable development as 'an enduring, balanced approach to economic activity, environmental responsibility and social progress' (British Standard Institute (BSI), 2006). These definitions link issues or impacts across spatial and temporal scales, as well as natural and human social systems.

Despite the proliferation and vagueness of the meaning of SD, one popular shorthand interpretation is the concept of the 'triple bottom line' of economic, environmental and social accountability (Elkington, 1997). This idea shifts the debate from traditional environmentalism to the notion of sustainability, which requires a much more complex process of trading off environmental, social and economic priorities.

Hence, SD is a multidimensional concept which requires multidisciplinary thinking. Reed (2007) argues that the way we think about and practice sustainability should be moved into whole systems and living systems thinking. Others approach SD by using some scientific theories, e.g. chaos theory (Stewart, 1989, Hock, 1999; Fitzgerald and van Eijnatten, 2002) or integral theory (Wilber, 2000; Riedy, 2007). All these theories emphasise that a holistic and dynamic approach should be taken in dealing with SD related issues, which we believe should be applicable in the process of creating sustainable workplaces.

Sustainable Workplaces

Along with the movement towards sustainability, many claim that work or the work system should be made sustainable. Hvid and Lund (2002) define sustainable work as 'a conscious, goal oriented and corporate activity, which involves both the workers and external stakeholders in the fulfillment of social and environmental needs for those who are working, the society they are a part of, and the natural environment.' Van Eijnatten (2000) argues that to make a work system sustainable, the quality of a) work, b) the organisation and c) connections with the environment must all be kept constantly at a high level. Further, Backström et al. (2002) claim such a system should consciously and simultaneously strive towards development at individual, group/company, and society levels.

To accommodate sustainable work or a work system, the concept of sustainable workplaces emerged. While many regard sustainable workplaces as the same as environmentally friendly or 'green' workplaces, some interpret the concept with more emphasis on human issues. Handy (2002, p.54) argues that 'in the knowledge economy, many people have seen their ability to balance work with the rest of their lives deteriorate steadily, as they fall victim to the stresses of the long hours culture'; he therefore claims that 'sustainability must extend to the human as well as the environmental level.' Kvam (2005, p. 2) describes a sustainable workplace as 'a place you go to with joy, where people remain in good health and work into old age, and where colleagues participate in developing processes.' Similarly, a Danish trade union representative claims a sustainable workspace should be 'somewhere you will go to feeling happy and come back from feeling satisfied. A place you can work all your life without being burnout, and where you have access to good tools. The tempo mustn't be too high, and you should have a say in matters and be listened to.' (Wallin, 2005, p.12)

Others take a much broader view. The U.S. General Services Administration (GSA, n. d., p.12) points out that a sustainable approach should consider many workplace approaches, i.e. how we work; where we work; how we get to work; how we build, lease, furnish, and ultimately dispose of our building; and how we operate and maintain our buildings.

Similarly, Gomes et al. (2001) argue that a sustainable workplace 'takes into account the ecological and social consequences of operations, as well as economic ones'. They claim that this broad subject embraces:

- features of the community where the business takes place;
- business organisation and its impact in the community;
- characteristics of the building where people work;
- equipment, furnishings and finishing of the physical place;
- the interaction between people within the workplace; and
- interactions with the environment.

These authors make it clear that creating sustainable workplaces must take all environmental, social and economic aspects of the workplace into consideration.

Based on the discussions above, creating sustainable workplaces perhaps calls for a holistic business philosophy, which, by embedding sustainable development principles into all aspects of workplace development, aims to deliver environmental, social and economic benefits over the long term, and facilitates the creation of a positive and sustainable society. This definition is adopted by this research.

GUIDANCE ON SUSTAINABLE WORKPLACE DESIGN AND ORGANISATION

To create sustainable workplaces, many practical guidance documents have been developed by various organisations around the world. This study focuses on guidance for office-based workplace, however they could also be appropriate for implementation in other types of workplace.

Generally speaking, the key sustainable workplace guidance can be divided into two broad categories:

Category A: Ecological Sustainability (ES) oriented guidance, which focuses on SD of physical workplace environment;

Category B: Human Sustainability (HS) oriented guidance, which emphasises the SD of human assets and business organisation within the workplace.

Table 1 lists the key guidance documents under these two categories.

Category A: Ecological Sustainability (ES) oriented guidance

Category A-1 Office design, procurement and refurbishment oriented guidance

Guidance within this category focuses on the physical environment of the workplace, i.e. the whole life cycle of the office buildings, office space and the other facilities within the workplace. This is generally a well-researched area within many sectors (e.g. the British Council for Offices), developers (e.g. The British Land Company plc), professional institutions (e.g. the American Institute of Architects) throughout the world, who have been actively engaged in researching the relationship between the physical workplace and sustainability.

The majority of such guidance covers design, procurement and refurbishment of offices through the use of comprehensive rating systems. In the UK, the Building

Table 1 Categorisation of key guidance on creating sustainable workplaces

Category		Guidance Documents		Common Aspects
		Title	Produced By	
(A) ES oriented guidance	(A-1) <i>Office design, procurement and refurbishment oriented guidance</i>	Rating systems: UK - BREEAM Offices US - LEED Australia - the Green Star Japan - CASBEE	Building Research Establishment, UK Green Building Council, USA Green Building Council of Australia Japan Sustainable Building Consortium	Prerequisites Land use Site development Energy management Water management Waste management Health and comfort Ecology/landscaping Building material selection Transportation
		Best Practice Guide: Environmental Management in Offices (Section 2)	British Council for Offices	
		Sustainability Brief (Version 2)	British Land	
		Real Property Sustainable Development Guide	General Services Administration	
		Sustainable Development and Society	General Services Administration	
		Sustainable Office Design (White Paper and Checklist)	Morgan Lovell	
	(A-2) <i>Office management and operation oriented guidance</i>	Best Practice Guide: Environmental Management in Offices (Section 3)	British Council for Offices	Importance of environmental policies and environmental management system
		Green Efficiency	Envirowise	Energy management
		Green Office Guide and Green Management Guide	Auckland Environmental Business Network	Water management
		Sustainable workplace	TUSDAC	Waste management
		Greening the Workplace	TUSDAC	Health and comfort
		Eco-Office Program	Department of Environmental protection, Perth	Office consumables purchase and disposal
				Transportation
(B) HS oriented guidance		Are you a leader business? Hallmarks of sustainable performance	Forum for the Future	Importance of values-based management
		Sectoral sustainable development strategies; self assessment guide	Sustainable development commission	Employee inclusion and collaboration
		BS8900:2006 Guidance for managing sustainable development	BSI British Standards	Competency building Work/life balance
		The sustainable workplace	Danish Labour Organisation	Supply chain management
		Sustainability and work place development	Henrik Lund, RUC	Community management
		Getting it together	British council for offices	

Research Establishment Environmental Assessment Method for Offices (BREEAM) (Baldwin, et al. 1998; BRE, 2006a; BRE, 2006b) is a widely used means of assessing the environmental performance of office buildings. It can be used for the design and procurement of new build or refurbishment, and the management and operation of existing offices. Based on the scale 'Pass', 'Good', 'Very good' and 'Excellent', a BREEAM certificate is awarded to projects where the building design and operation is to a higher standard than required by the Building Regulations. The key categories for such assessment include land use, ecology, transport, materials, energy, water, health and well being, pollution, commissioning and building operation management.

Similarly in the USA, the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED™) (U.S. Green Building Council, 2005, 2008) provides guidance in the areas of building development and design which results in a more sustainable project. The Basic LEED™ components cover prerequisites, building materials, energy efficiency, existing building rehabilitation, indoor air quality, landscaping, siting and site development, transportation, and water conservation. LEED™ also has a few spin-off systems currently used in different countries, such as LEED Canada-NC 1.0™ and LEED-India Green Building rating system.

Apart from these, there are many other environmental rating systems for buildings, such as the Australian Green Building Council's Green Star environmental rating system for buildings and the Japan Sustainable Building Consortium (JSBC)'s Comprehensive Assessment System for Building Environmental Efficiency (CASBEE). All these rating systems focus on office buildings.

In addition to these assessment tools, other guidance documents are available. In the UK, one of the more recent is the British Council for Offices (BCO)'s Best Practice Guide: Environmental Management in Offices (BCO, 2006a). Section 2 of

the guide covers the environmental issues to be considered when acquiring and designing offices, and describes the environmental considerations relevant when undertaking construction and refurbishment work. It covers the full lifecycle of the office building, starting from site procurement to end of life consideration. It also provides guidance on sources of information, processes and procedures and lessons learned from several case studies.

Moreover, as one of the UK's largest property companies, British Land produced its own Sustainability Brief (British Land, 2007), which covers sustainability issues in developments, design and construction. It presents key issues under five broad sustainability headings: site and neighbourhood, resource consumption, environmental quality, user and occupant satisfaction and stakeholder relations and dialogue. It is a comprehensive guide for office building developments.

In the USA, GSA's Real Property Sustainable Development Guide (GSA, n. d.) offers guidelines on implementing sustainable workplaces; ideas, case studies and resources are provided, but no detailed practical guidance is included. Another GSA guidance document named Sustainable Development and Society (2004) contains a series of articles focusing on safe building products and services and how they affect property owners and operators.

In addition, as one of the UK's leading office design, fit out, refurbishment and relocation specialists, Morgan Lovell has published its own "white paper" (n. d.) and checklist (Morgan Lovell, 2007) which provides a step-by-step guide to running a smooth, successful and cost-effective sustainable fit out or refurbishment. Issues covered range from setting up vision and writing up a brief, to choosing the right materials and meeting government guidelines.

In general, category A-1 guidance emphasises key environmental issues in an office building's lifecycle, i.e.:

- Prerequisites of the project

- Land use
- Site development
- Energy management
- Water management
- Waste management
- Health and comfort
- Ecology/landscaping
- Building material selection
- Transportation

Many of these reports provide performance benchmarks and indicators, making them both practical and comparable.

Category A-2 Office management and operation oriented guidance

Guidance documents in this category focus on the routine, day-to-day management and operation of the workplace; many are quite similar. The targeted audiences are office workers and facility managers. A few seemingly comprehensive guides developed in various countries are discussed below.

In the UK, Section 3 of the BCO's Best Practice Guide (BCO, 2006a) provides guidance on how to improve office environmental performance in a cost effective manner, including advice on energy/carbon management, transport, waste management, water management, recycling, equipment selection and environmental procurement policies with regard to office operation. It describes what an environmental policy should contain, the basic features of international environmental management systems, and environmental benchmarking systems relevant to the UK.

Envirowise is a UK government funded programme which provides advice on improving resource efficiency to businesses in industry and commerce. Its guide

named 'Green Efficiency' (Envirowise, 2000) aims to help office workers to reduce their impact on the environment and improve the use of office resources, i.e. paper, waste, recycling, water, energy, transport and environmental reporting. Detailed benchmarks and calculation methods are included.

Similarly, New Zealand's Auckland Environmental Business Network's Green Office Guide (AEBN, 2004a) provides implementation strategies for the following areas within the workplace: staff café or kitchen, office equipment, furniture and stationery, bathroom, cleaners and cleaning services, building, surroundings and fittings, alternative energy sources, lighting, HVAC systems, reduce hot water demand, conserve water, paints and oils, floors and coverings, office gardens, and reduce stormwater runoff. AEBN's Green Management Guide' (AEBN, 2004b) discusses the issues and business case for the transformation of office, and presents a 'Green Office Scorecard' to help people assess how well their organisation has adopted the strategies.

The UK trade union TUSDAC produced a brief guide named 'Sustainable workplace' (TUSDAC, n. d.) for its members. It includes guidelines, case studies and detailed resources and a TUSDAC (2005) report provides detailed discussion on this. It clarifies the responsibility of the government, trade union, employer and employee in the process of developing sustainable workplaces, and the contents are very trade union focused and UK-specific.

The Eco-Office Program produced by Department of Environmental protection in Perth, Australia (2000) provides guidance and useful template to follow. The program concentrates on:

- Paper use, recycling and disposal
- Energy use
- Waste generation and disposal
- Purchasing policy

- Vehicle use
- Environment awareness and practices of staff

In general, Category A-2 documents cover the key environmental issues in the management and operation of offices, and highlight the following key aspects:

- Importance of environmental policies and environmental management system
- Energy management
- Water management
- Waste management
- Health and comfort
- Office consumables purchase and disposal
- Transportation

It appears that these key aspects are very similar to those in Category A-1. The focus is on the environmental impacts of the workplace operation, and aims to raise environmental awareness within the workplace. However, unlike category A-1 which focuses mainly on building, these documents emphasise office equipment, fixtures and fitting, and consumables (e.g. stationery, papers, etc.). Performance benchmarks and indicators are also provided by these guidance documents.

Category B: Human Sustainability (HS) oriented guidance

Documents in this category tend to take a much broader view of workplace sustainability issues, and target new, especially social dimension, of this subject.

In the UK, Forum for the Future (2006)'s guide 'Are you a leader business' presented a model (See Figure 1) which highlights several hallmarks of applying sustainable development to business. It pulls together case studies from companies such as BP, Nike and Toyota to demonstrate the financial, social and environmental benefits that business is achieving through sustainable

development. Although targeted at a more strategic level in the business, many of these issues are workplace-related and could therefore be used as guidance in creating sustainable workplaces.



Figure 1 A model for applying sustainable development to business

(Source: Forum for the Future, 2006, p. 7)

Meanwhile, the UK Sustainable Development Commission (UKSDC) published its 'Sectoral sustainable development strategies' (UKSDC, 2002) which is a self assessment guide on developing SD strategy within business sectors. It provides a comprehensive matrix on objectives and possible indicators for sectoral strategies for SD to facilitate self-assessment.

Another key document in the UK is BS8900: 2006 (BSI, 2006) which takes the form of guidance and recommendations to response to growing calls from organisations in the UK and elsewhere to integrate sustainable development principles into business management spheres. It aims to help organisations develop an approach to sustainable development that will continue to evolve and adapt to meet new and continuing challenges and demands. It provides a framework that assists organisations to enhance performance and effectiveness and a coherent approach to managing economic, environmental and social

aspects of an organisation's activities. Hence, it could have a direct influence on sustainable workplaces.

In Denmark, the project 'Towards the sustainable workplace' (the TSW project) aims to create development processes at the workplaces and between all the players, thus paving the way for more sustainable workplaces and greater workplace democracy. Its guide 'The sustainable workplace' (The Danish Trade Union Movement's Centre for Competence Development (FKC) and The Danish Confederation of Trade Unions (LO), 2004) and the working paper 'Sustainability and Work Place Development' (Lund, n. d.) define five central elements of sustainability as knowledge, social responsibility, ethical responsibility, health and safety at work, and external environment. It also identifies three interdisciplinary priorities as finances, skills development and employee participation (see Figure 2). It has a focus on employee participation, the development of skills and cooperation, and attempts to give some suggestions in practice.

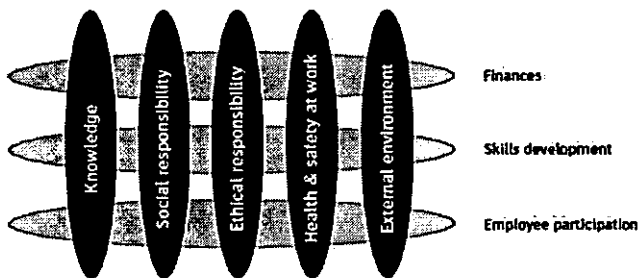


Figure 2 The project Towards the Sustainable Workplace (the TSW project)'s model of sustainable workplace development (Source: The Danish Trade Union Movement's Centre for Competence Development (FKC) and The Danish Confederation of Trade Unions (LO), 2004, p. 6)

In addition, BCO's guide 'Getting it together' (BCO, 2006b) provides guidance on creating family friendly workplaces which help workers to improve work/life balance. The guidance is offered based on several detailed case studies and highlights the social aspect of workplace development.

In general, Category B documents bring human factors into workplace design by addressing the following key aspects:

- Importance of values-based management
- Employee inclusion and collaboration
- Competency building
- Work-life balance
- Supply chain management
- Community management

Unlike Category A, the documents above were produced with the aim of drawing attention towards areas beyond the environmental aspects of sustainability. Although these issues are often mentioned by human resource managers or in company CSR policies, generally speaking, the documents are founded at a very strategic level. Hardly any benchmarks or indicators are given in category B documents, and there is a lack of guidance about how to implement these into workplaces and how progress could be measured in the long-term.

In order to provide more insight into these guides, further analysis was conducted based upon the three dimensions of sustainability as defined in the concept of 'triple bottom line' (Elkington, 1997), i.e. environmental, social and economic dimensions. Table 2 demonstrates the results of the evaluation of these guides against the three dimensional framework.

Table 2. Summary of guidance on sustainable workplaces

Guidance	Year	Length	Author	Country	Economic	Environmental	Social	Notes
BREEAM for offices	1998 2006	46pp 30pp	Building Research Establishment	UK	○	●	*	Comprehensive rating system; covers design and procurement, management and operation of the office building. Extensive coverage of environmental issues.
LEED (Existing/New buildings)	2005 2009	878pp N125pp	Green Building Council	USA	○	●	*	Comprehensive rating system for new and existing buildings. Most environmental issues are covered.
Best Practice Guide: Environmental Management in Offices	2006	74pp	British Council for Offices	UK	○	●	○	Detailed guidance provided on design, procurement and operation of the office building/workplaces. Also includes several case studies.
Green Office Guide	2004	32pp	Auckland Environmental Business Network	New Zealand	○	●	*	Detailed guidance provided on operation and management of the workplace.
Green Management Guide	2004	28pp			○	*	*	Discusses the issues and business case for the transformation of office; also includes a 'Green Office Scorecard' to help people assess how well their organisation has adopted the strategies.
Green Efficiency	2002	45pp	Enviroline	UK	*	●	○	Detailed guidance provided on operation and management of the workplace; benchmarks and calculation methods included.
Sustainable workplace	n.d.	23pp	TUSDAC					Brief guidelines; four case studies included; detailed resources provided.
Greening the Workplace	2005	84pp	TUSDAC	UK	○	●	●	Comprehensive trade union report with wide coverage. UK specific; offers further steps for government, trade unions, trade union members and employers to take. Case studies were included.
Eco-Office Program	2000	Approx. 14pp	Department of Environmental Protection Perth	Australia		●		Guidance on operation and management of the office; can be used as a template to develop office environmental policy.
Sustainability Brief for Developments (Version 2)	2007	110pp	British Land	UK	○	●	*	Detailed guidance which sets out a process for improving sustainability performance of a development project. Sustainability review, key standards and good practice are offered.
Sustainable Office Design (White Paper and Checklist)	2006	45pp+ 7pp	Morgan Lovell	UK	○	●	*	Guidance provided with an focus on Office interior design and fit-out.
Real Property Sustainable Development Guide	2000	30pp	General Services Administration	USA	○	*	*	Guidelines on implementing sustainable workplaces; ideas, case studies and resources are offered, but no detailed guidance is included.
Sustainable Development and Society	2004	82pp	General Services Administration	USA	○	○	●	A series of articles focusing on safe building products and services and how they affect real property owners and operators in everyday decisions
BS5900:2006 Guidance for managing sustainable development	2006	12pp	BSI British Standards	UK	○	○	●	British standard which provides guidance and recommendations on integrating SD principles into business practices. A development or maturity guide for companies.
Getting it together	2006	32pp	British Council for Offices	UK	○	○	●	Guidance on creating family friendly workplaces which help workers to improve work/life balance.
Sectoral sustainable development strategies: self assessment guide	2002	14pp	Sustainable development commission	UK	*	*	*	Guidance on the development of SD strategy within business sectors. A framework is provided to facilitate self assessment.
Are you a leader business? Hallmarks of sustainable performance	2006	36pp	Forum for the Future	UK	*	*	*	'Key hallmarks of leadership are discussed; case studies from big business are provided; five criteria are identified to facilitate the growth of sustainable business.
The sustainable workplace	2004	28pp	RYC & LO		*	*	*	Workplace sustainability is defined; a model is offered; development processes at workplaces and between all the players are discussed; links to other business and social issues are explored.
Towards the Sustainable Workplace	2002	12pp	Henrik Lund, RUC	Denmark	*	*	*	Guidance paper for the above project 'Towards the Sustainable Workplace'. Provide further detailed context and discussions. Good supplement for the above guidance.

* Intensively discussed

* Briefly discussed

○ Mentioned, without much discussion

DISCUSSION

The previous sections overview a range of key guidance documents and highlight a number of areas that are important in creating sustainable workplaces. Whilst they deal with particular aspects of workplace sustainability, they are not holistic or integrated. They fall into either ES or HS oriented categories, but few reports approach the concept of sustainable workplaces from both angles. The most developed is ecological oriented guidance (emphasis on the environmental impacts of office building/space/facilities and the workplace activities within), and promote environmental awareness among the workforce. These are generally more comprehensive than those in HS category, and many detailed methods, indicators and benchmarks are provided. The case studies presented in these guides reveal that many organisations are engaged in an ES oriented change process; experiences and valuable lessons are shared.

In contrast, the guidance in the HS category tends to be descriptive and only at a strategic level. This may be due to the fact that managing people in the workplace is a soft and more complicated task than managing environmental aspects. However, this reinforces the importance of providing useful guidance to lead people in the business through the change process. Benchmarks and indicators are useful to enable self-assessment and evaluation.

Furthermore, as shown in Table 2, many of those reports contain environmental, social and economic dimensions. However, none of the guidance reviewed was truly holistic with regard to the coverage of all three dimensions and the set out themes. The amount of coverage varies considerably between different sources. Most of the guides concentrate on the environmental dimension; social aspects are generally discussed briefly, while economic aspects are mentioned in terms of energy efficiency related cost saving.

The key issues covered in each dimension are shown in Table 3, together with examples of issues that could be developed further.

Table 3 Issues covered and missed by dimension.

	Key issues covered	Examples of issues to be reinforced or added
Environmental	Environmental impact of the office building through its lifecycle; Environmental impact of the office operation and management.	Shifting from resource/energy efficiency to effectiveness; Better interaction between human and nature.
Social	Health and wellbeing in the workplace; Importance of leadership and employee engagement in the office environmental management program; Work/life balance of the office workers.	Ways to recognise the needs of people and initiate behavioural change; Better interaction between the workplace and community.
Economical	Energy efficiency and cost saving from better resource/energy management.	Ways to maintain high and stable levels of business growth and employment.

Based on the three dimensions of sustainability as defined in the concept of 'triple bottom line' (Elkington, 1997), directed content analysis was carried out to reveal the key aspects of sustainable workplaces against the three dimensions of sustainability. The results are discussed below.

Environmental dimension

The essential role that ecosystems play in supporting our workplace activities establishes an environmental imperative that must be respected by all. The existing guidance provides extensive discussion on this dimension and highlighted the following key aspects:

- 1) Energy management
- 2) Water management
- 3) Materials and resources
- 4) Emissions, effluents and waste management
- 5) Transport
- 6) Product and service provision

Social dimension

This dimension focuses on individual's needs within the workplace. To structure the issues highlighted in the available guides, Maslow (1954)'s well known theory of the hierarchy of human needs was adapted. Maslow suggests that as individuals our behaviour responds to an escalating hierarchy of needs. In escalating order, Maslow lists these as 1) Physiological 2) Safety 3) Belongedness and love 4) Esteem and 5) Self-Actualisation. We argue that only by satisfying these human needs can human capital be developed sustainably. When relate these human needs to the workplace development, they could be interpreted into the following five key aspects:

- 1) Basic working conditions, e.g. provision of light, water (Physiological)
- 2) Absence of diseases and minimising workplace health risks, e.g. prevention of occupational diseases (safety)
- 3) Stable and comfortable workplace environment, e.g. employee inclusion (Belongedness and love)
- 4) Social coherence within workplace, e.g. competency building (Esteem)
- 5) Happiness and wellbeing within workplace, e.g. work-life balance (Self-actualisation)

Economic Dimension

An organisation's ability to sustain a quality workplace depends on its ability to foster a strong and sustainable economic performance. It should be able to derive greater social/human benefits from the efficient and effective use of environmental assets, while providing the means for increased environmental protection and conservation. Through the content analysis of the guidance documents, it is revealed that an organisation's sustainable economic development includes the following key aspects:

- 1) Economic performance

2) Market presence

3) Indirect economic impact

The energy efficiency related cost saving, as a key issue covered in the existing guides, is just a factor contributing to the economic performance of the organisation.

Based on the discussion above, a conceptual framework for creating the sustainable workplace was established as shown in Figure 3. Meanwhile, four overarching observations can be made which are discussed below.

1) The need for a holistic and balanced perspective

Creating sustainable workplaces means balancing various aims, and the following three issues could be relevant.

a) Balancing three dimensions of sustainability

Sustainable development goes beyond 'good' environmental practice with a more holistic approach that looks toward improving environmental, economic and social performance. As discussed above, the guidance available is still unbalanced and fragmented. The primary focus is on technical and natural systems while others are more or less overlooked. As such, there is a need to take a multiple perspective on the impact of decisions and actions in the workplace, i.e. evaluate the environmental, social and economic impacts simultaneously, which also requires a good understanding of the interrelationships between the three.

b) Balancing Short Term and Long Term Views

Similarly, creating sustainable workplaces should not simply be a shortsighted or isolated response to a given challenge that the workplace faces, such as reducing the cost of energy or workplace accidents. We must have a long-term perspective, and hence should link to other activities within the company and its interaction with the society, e.g. research and development; suppliers

management. More importantly, every decision should be made with an eye to the greatest long-term benefits. Nevertheless, it is also dangerous to overlook the short-term impact of each action. Without short-term tangible outcomes, it is difficult to engage and empower people to commit to long-term changes. Hence both short term and long-term views should be balanced.

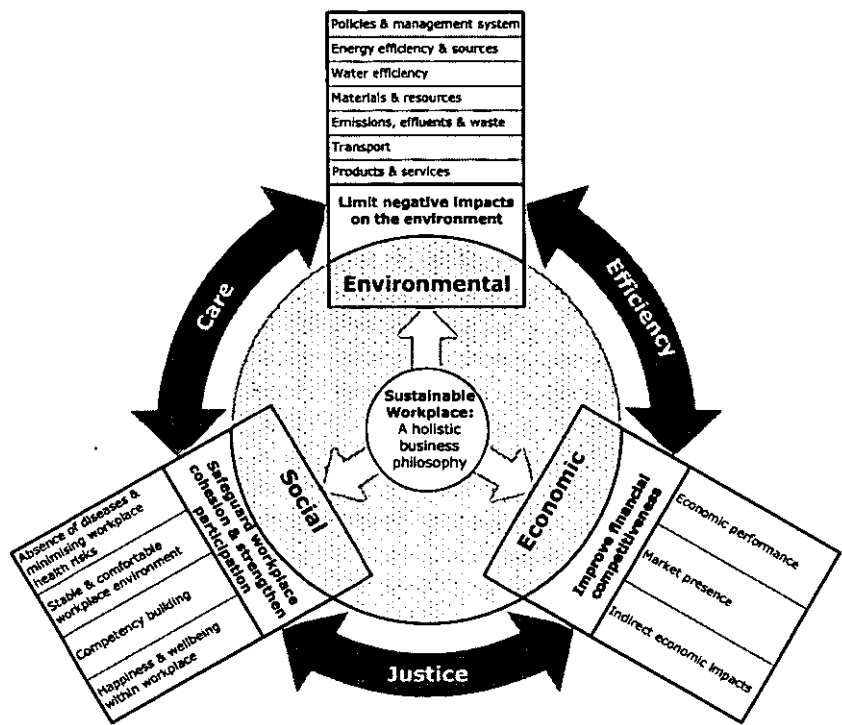


Figure 3 A conceptual framework for sustainable workplace (by authors)

c) Balancing Efficiency, Effectiveness and Expression

Sustainability is currently very efficiency-focused. People are attempting to slow down the damage caused by excessive resource use, hence much of the guidance offers detailed advice on energy efficiency and cost savings. Whilst this is a good starting point toward sustainability, it is by no means the only aspect.

According to the Commission for Architecture & the Built Environment (CABE) and BCO (2005), the performance of the workplace environment could be measured by three business objectives, namely efficiency, effectiveness and expression. Efficiency involves getting the most from the real estate and driving down occupancy cost; increasing effectiveness in the workplace means using space in ways that improve the quality of work being done there, or getting the most from people; expression is concerned with getting the most from the brand of the organisation and with communicating messages to both the inhabitants of the building and those who visit and interact with it. They argue that the potential impact on business performance of measuring 'effectiveness' and 'expression' is far greater than any cost savings. Hence in the process of developing sustainable workplace, the 3E's should all be considered and measured, thus making sure that the needs for improvement in the three areas are addressed.

2) The requirement for a genuine partnership

Creating sustainable workplaces is a task which requires a genuine partnership. Joint employee-employer action is the key to creating a sustainable workplace. While the commitments and leadership from the employer pave the way towards the sustainable workplace, the best way to ensure the adoption of sustainable development is to educate and involve employees (TUSDAC, 2005). As such, everyone in the workplace should make real strides in delivering a more sustainable workplace. Secondly, sustainable development requires the integration of various stakeholders' needs with the company's business goals and the work itself. These stakeholders include primary stakeholders, (e.g. customers, shareholders, employees, suppliers and regulators), and secondary stakeholders, (e.g. academic institutions, NGOs, neighbours and social activists (Freeman, 1984). Individuals need to learn how to participate in partnership with the others in a mutually beneficial way of relationship building. This means engaging in a continuous, intentional process of understanding how the workplace can benefit

both people and the organisation, and how all can engage in an ongoing, healthy, evolving process.

3) The dynamic nature of the sustainable workplace

The term 'Sustainable Workplace' does not signify a permanent state or a static condition. Reaching and maintaining sustainability is a continuous process of continuous re-examination and relearning. According to FKC and LO (2004), any SD within the workplace should come from moving in the right direction and not in achieving a certain goal. Each workplace must establish its sustainable workplace based on the challenges and opportunities it faces, and take a reflective view of such development as an evolution, rather than a revolution.

4) The Importance of values-based behavioural change

Sustainability does not necessarily require a loss in quality of life, but does require a change in mind-set, and potentially a change in values toward less consumptive lifestyles (GSA, n. d.). Lund (n. d.) argues that SD should be created through value-based changes that are difficult to obtain through changes in regulation and through the use of experts alone, because it is primarily about attitudes to work and life in general. However, it is hard to change ingrained habits - this needs patience and persuasion. Organisations should adopt a values-based management approach, focus on communication, and create visible results.

CONCLUSIONS

This study has reviewed a wide range of practical guidance documents relating to sustainable workplaces. This guidance has been systematically compared within a three-dimensional framework to systematically reveal the extent of their coverage of the workplace sustainability issues.

This study has revealed that as an emerging and fast developing area, the research into sustainable workplaces is still fragmented and unbalanced. Many guides place emphasis on environmental impacts arising from workplace

activities, and aim to promote environmental awareness among the workforce. Although this may be appropriate in itself, it is of concern that other key aspects of sustainable development (i.e. social and economic aspects) are often overlooked. The guidance offered is necessary rather than sufficient. Whilst some guides provide methods and benchmarks to facilitate practice, many are largely of a strategic nature with little in the way of specific detailed recommendation. We argue that a balanced and holistic approach is needed in the development of sustainable workplaces, considering social, economic and environmental challenges.

In practice, few organisations have been able to measure all their environmental-related impacts, and even fewer consider other SD related obligations. There is a danger that traditional strategies that lack a comprehensive, holistic view of things may end up solving some problems only to create others. The conceptual framework proposed adopts the three dimensional SD model and brings together the otherwise disparate fields of sustainability into consideration, with the aim of scoping the key issues in the SD of workplace.

However, the framework alone is not sufficient; a set of indicators needs to be developed to support the framework. These indicators, we believe, should be specific rather than generic, i.e. 'tailor-made' to address the needs of the workplace in question rather than 'one-size-fit-all' indicators. Moreover, some workplace sustainability related actions may involve improvements in some aspects at the expense of sectorally, spatially or temporally adverse impacts elsewhere. It is critical to identify the interdependent influences between the three dimensions of SD and explore the integration of these key workplace aspects. Therefore, further research is needed to:

- a. explore ways to define key indicators for each dimension;
- b. examine the interrelationships and interaction between the three dimensions;
- and

c. Identify ways to assess risks and opportunities in environmental, social and economic development of workplaces; this will allow organisations to evaluate both positive and negative consequences of workplace activity, in a way that reflects the costs and benefits for human and ecological systems, in monetary and non-monetary terms.

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APPENDIX 5: ARTICLE 'BUILDING ON VALUES'

Published in *Innovation and Research Focus*, 66, June 2006.

Building on values

Over recent years values have been holding a prominent place in both business ethics and organisational theories, and there is a detectable shift from management by instructions and objectives to management by values. Some organisations now devote significant energy to integrating values and beliefs into their business practices, which requires a clear and thorough understanding of the organisational values in the first place.

Many believe that organisations should have values that both reflect the collective values of all employees and align with individual values. The establishment of the linkage between individual and organisational values can provide legitimate insight into improving staff satisfaction and retaining employees over the long term. This is especially critical for construction industry, as the industry has long been known for facing tremendous challenges in attracting and maintaining a qualified workforce.

"Lean office environment" is a collaborative research project between Loughborough University and Currie & Brown - an international construction consultant company. As part of the research, recently a values study has been conducted across 14 UK offices of Currie & Brown. By utilising a questionnaire survey instrument developed upon the Schwartz's theoretical framework of human values, employees' values profiles were collected and analysed. Several follow-up workshops facilitated the identification and sharing of the common values, established the linkage between individual and organisational values, and provided guidance to the organisational behaviours.

This bottom up approach made the organisational values explicit in an understandable and useful way, and improved the congruence between individuals and the organisation. It is believed that this approach will enable organisations to create and sustain a competitive advantage, strengthen it day by day, therefore meeting and exceeding the current and future demands placed upon them.

APPENDIX 6: CASE STUDY IN VALID BROCHURE



VALID is a definitive value definition tool. It helps you understand your values and how they align with your business goals. It's a powerful tool for defining your values and how they align with your business goals.

Defining Organisational Values

This case study describes the use of VALID to:

Understand Values

It illustrates that:

- Implementation of a values survey
- Expression and sharing of values in a workshop
- Development of organisational values

Understand Values

"A systematic and rigorous approach using a definitive list of values"

"Demonstrates individual motivations and conflicts within a group"

"Everyone felt that they had performed a good exercise. The staff were pleased that the organisational leaders used a collective method to define organisational values"
Company Director, CWC

the issue

The Birmingham office of Currie & Brown, an international project management, cost management and consulting organisation, used VALID to help them understand and define their shared values to formulate a company vision.

the process step by step

Step 1

Administer Values Survey

A questionnaire was circulated to all individuals within a divisional office, and took approximately thirty minutes to complete. Below are example values:

AUTHORITY - the right to lead or command

BROADMINDED - tolerant of different ideas and beliefs

ENJOYING WORK - find reward in work activities, relationships, making a contribution and having a friendly atmosphere

SUCCESSFUL - achieving goals

Step 2

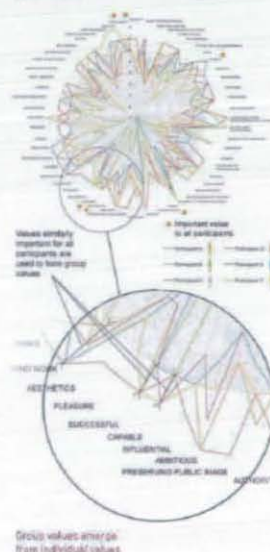
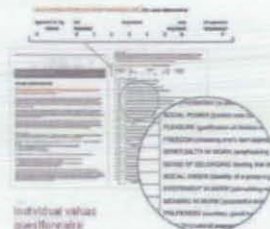
Analysis and Presentation

The values of individual respondents were plotted to reveal alignment and misalignment within the group.

Step 3

Pre-workshop preparation

Individual and group values plots were distributed to all questionnaire respondents, together with the organisational average and standard deviation for each value.



"It is helping all employees to understand how individual and team values can be attuned to create an office environment that compliments the vision of the business."

"An extension of this study will be to align our values with those of our customers..."
Company Director, Currie & Brown

"People took away a confidence in a set of shared team values, values which they were comfortable with and which the staff recognised when looking at company literature"
Company Director, CWC

**Step 4
Organisational Values Workshop**
After an introductory presentation groups were formed reflecting experience and management responsibility. Their discussions identified the most important values, which they then expressed in their own words and identified links to company practices. Group values and practices were collaboratively plotted onto a blank values model to build an overall picture.



A workshop group defining organisational values and practices

**Step 5
Post-workshop**
The organisational values model was displayed in the workplace to stimulate debate. This model was then used to define the organisational values statements. This values definition process was then repeated in other offices to help derive a company vision and mission.



Model of organisational values

PROFESSIONALISM - We take an active role in developing ourselves to the highest potential and strive for personal and professional excellence. (Capable, Intelligent, Dutiful and Professional, Learning, Curious)

INTEGRITY - We value self-respect and dignity and treat all people with courtesy and respect; we are dedicated to high ethical and moral standards that include honesty, loyalty and responsibility.

Insights

An understanding of shared values provided company leaders with a platform from which to formulate business strategies which accord with the organisations prevailing culture.



Value in Design

This case study is one of a series describing aspects of the VALID approach to its delivery. VALID was first implemented in the Innovative Manufacturing programme by the Centre for Design at Liverpool John Moores University, AMEC and Bangor, Newcastle Eastern Cheshire, C&B, Construction Economics and the East Cheshire Local Development Partnership. It was then implemented by RIBA, RICS and the second project. The work was funded by the EPSRC and JTI with support from the project partners. More information is available at www.valueindesign.com

APPENDIX 7: VALUES QUESTIONNAIRE



Please can you complete this Values Questionnaire. It can be completed electronically and emailed back to Grace Zhang ASAP.

VALUES QUESTIONNAIRE

This questionnaire measures the importance our organisation places on a pre-determined set of values.

A value is a person's tendency to prefer one thing over another. They are distinctive for an individual or a characteristic of a group, they inform our decisions to act in a particular way or deliver a particular outcome. Values are the core elements of a culture, and identifying them will enable us to find the collective way of thinking, feeling and reacting that distinguishes the members of one organisation from another. This questionnaire and the subsequent analysis aim to make values more visible.

Your questionnaire response will be aggregated with other colleagues to create a profile of our organisation's values. It will be treated confidentially and could subsequently be used to identify and enhance the organisation values in Currie & Brown.

This questionnaire is adopted from a similar method developed by Shalom Schwartz who conducted one of the most extensive research projects on values ever carried out. By 1994, he had collected answers from more than 25,000 respondents. Schwartz is a highly respected academic in the field of psychology and human values. The questionnaire has been successfully applied in over 44 countries both within and outside his own field of psychology.

INSTRUCTIONS

In this questionnaire you are to ask yourself: "What values are important to **ME** as guiding principles in my working life, and what values are less important?" There is a generic list of values on the following pages.

Your task is to rate how important each value statement is for you **AS A GUIDING PRINCIPLE**, using a 0-6 rating scale. Where:

0 – means a value statement is not at all important, it is not relevant as a guiding principle.

3 – means a value statement is important.

6 – means a value statement is very important.

The higher the number (0, 1, 2, 3, 4, 5, 6), the more important the value driver is as a guiding principle for you.

The lowest and uppermost ratings of -1 and 7 will be given to values from the two lists. Where:

-1 – indicates the value statement most opposed to your principles.

7 – indicates the value statement that is of supreme importance to you as a guiding principle

Ordinarily there are no more than two such values for each list.

In the space before each value statement, write the number (-1, 0, 1, 2, 3, 4, 5, 6, 7) that indicates the importance of that statement in your organisation. We are looking for your personal opinion and there are no right or wrong answers. Please read through the each list of values once before starting. This will enable you to score each individual question in relation to the other value statements in the list. Please distinguish as much as possible between the value statements by using the full range of the scoring scale. You will, of course, need to use numbers more than once. Please be sure to answer all questions as honestly and as accurately as possible.

VALUES LIST 1

Before you begin, please read all the values in List 1 and then choose the one that is of supreme importance as a guiding principle and rate its importance 7. Next, choose the value statement that is most opposed to the principles that guide your working life and rate it -1 (if there is no such values statement, choose the one least important to you and rate it 0 or 1, according to its importance). Then rate the rest of the values in List 1 on the scale.

AS A GUIDING PRINCIPLE IN MY WORKING LIFE, this value statement is:

opposed to my values	not important	important	very important	of supreme importance
-1	0 1	2 3 4	5 6	7

No	Rating	Value statement
V1	<input type="text"/>	EQUALITY (equal opportunity for all at work)
V2	<input type="text"/>	INNER HARMONY (at peace with oneself)
V3	<input type="text"/>	SOCIAL POWER (control over others, dominance)
V4	<input type="text"/>	PLEASURE (gratification of desires and indulging oneself)
V5	<input type="text"/>	FREEDOM (choosing one's own approach)
V6	<input type="text"/>	SPIRITUALITY IN WORK (emphasizing soulful matters rather than material matters)
V7	<input type="text"/>	SENSE OF BELONGING (feeling that others care about oneself)
V8	<input type="text"/>	SOCIAL ORDER (stability of a group e.g. project group or local community group)
V9	<input type="text"/>	EXCITEMENT IN WORK (stimulating experiences)
V10	<input type="text"/>	MEANING IN WORK (purposeful work)
V11	<input type="text"/>	POLITENESS (courtesy, good manners)
V12	<input type="text"/>	WEALTH (material possessions, money)
V13	<input type="text"/>	SOCIAL SECURITY (protection of a wide group of people to include their financial, physical and mental well-being)
V14	<input type="text"/>	SELF-RESPECT (belief in one's own worth)
V15	<input type="text"/>	RECIPROCATION OF FAVOURS (avoidance of indebtedness)
V16	<input type="text"/>	CREATIVITY (uniqueness, imagination)
V17	<input type="text"/>	PEACE BETWEEN PEOPLE (conflict-free environment)
V18	<input type="text"/>	RESPECT FOR TRADITION (preservation of time-honoured customs)
V19	<input type="text"/>	SELF-DISCIPLINE (adherence to one's own voluntary codes of practice, self-restraint, resistance to temptation)
V20	<input type="text"/>	PRIVACY (the right to have a private sphere)
V21	<input type="text"/>	SECURITY OF FRIENDS AND FAMILY (safety and security of people closest to oneself)
V22	<input type="text"/>	SOCIAL RECOGNITION (respect, approval by others)
V23	<input type="text"/>	UNITY WITH NATURE (fitting into nature)
V24	<input type="text"/>	INNOVATION (varied work filled with thought, challenge, novelty and change)
V25	<input type="text"/>	WISE IN ISSUES OF ETHICS (a mature and broad understanding of life which informs action)
V26	<input type="text"/>	AUTHORITY (the right to lead or command)
V27	<input type="text"/>	TRUE FRIENDSHIP (close, supportive friends, love)
V28	<input type="text"/>	AESTHETICS (a pleasing visual appearance, the beauty of nature and the arts)
V29	<input type="text"/>	SOCIAL JUSTICE (understanding the needs of others to help them correct any injustices and build mutually beneficial relationships)

Appendix 7: VALUES QUESTIONNAIRE

VALUES LIST II

These values are phrased as ways of acting that may be more or less important. Once again, try to distinguish as much as possible between the values by using the full range of the scoring scale.

Before you begin, please read all the values in List II and then choose the one that is of supreme importance to you as a guiding principle and rate its importance as 7. Next, choose the value statement that is most opposed to the principles that guide your working life and rate it -1 (if there is no such value statement, choose the one least important to you and rate it 0 or 1, according to its importance). Then rate the rest of the values in List II on the scale.

AS A GUIDING PRINCIPLE IN MY WORKING LIFE, this value statement is:

opposed to my values	not important	important	very important	of supreme importance
-1	0 1	2 3 4	5 6	7

No	Rating	Value statement
V30	<input type="text"/>	INDEPENDENT (self-reliant, self-sufficient)
V31	<input type="text"/>	MODERATE (avoiding extremes of feeling and action)
V32	<input type="text"/>	LOYAL (faithful to my friends, colleagues and associates)
V33	<input type="text"/>	AMBITIOUS (hard-working, aspiring)
V34	<input type="text"/>	BROADMINDED (tolerant of different ideas and beliefs)
V35	<input type="text"/>	HUMBLE (modest, self-effacing)
V36	<input type="text"/>	DARING (takes chances, evaluates risks, responsive to changes of plan)
V37	<input type="text"/>	PROTECTING THE ENVIRONMENT (preserving nature)
V38	<input type="text"/>	INFLUENTIAL (having an impact on people and events)
V39	<input type="text"/>	HONOURING OLDER MORE EXPERIENCED OTHERS (showing respect)
V40	<input type="text"/>	CHOOSING OWN GOALS (selecting one's own purposes)
V41	<input type="text"/>	HEALTHY (not being sick physically or mentally)
V42	<input type="text"/>	CAPABLE (competent, efficient and effective)
V43	<input type="text"/>	ACCEPTING MY PORTION IN LIFE (submitting to life's circumstances)
V44	<input type="text"/>	HONEST (genuine, sincere)
V45	<input type="text"/>	PRESERVING PUBLIC IMAGE (protecting "face")
V46	<input type="text"/>	OUTFUL AND PROFESSIONAL (meeting obligations, obedient, adhering to statutory codes of practice and legislations)
V47	<input type="text"/>	INTELLIGENT (logical, thinking)
V48	<input type="text"/>	HELPFUL (working for the welfare of others by giving them just reward)
V49	<input type="text"/>	ENJOYING WORK (find reward in work activities, relationships, making a contribution and having a friendly atmosphere)
V50	<input type="text"/>	FAITHFUL (holding to belief)
V51	<input type="text"/>	RESPONSIBLE (dependable, reliable)
V52	<input type="text"/>	CURIOUS (interested in everything, exploring)
V53	<input type="text"/>	FORGIVING (willing to excuse others and to tolerate mistakes)
V54	<input type="text"/>	SUCCESSFUL (achieving goals)
V55	<input type="text"/>	CLEAN (neat, tidy)
V56	<input type="text"/>	LEARNING (enjoying the opportunity to learn, improve skills and learn new skills)

BACKGROUND INFORMATION

Name:

Organisation:

B1 You are: Female ☐ Male ☐

B2 Which one of the following most closely represents your professional background? (Tick one box)

- | | | | |
|------------------------|--------------------------|-------------------------------|--------------------------|
| i. Quantity Surveyor | <input type="checkbox"/> | vii. Project manager | <input type="checkbox"/> |
| ii. Building Surveyor | <input type="checkbox"/> | viii. Architect | <input type="checkbox"/> |
| iii. Services Engineer | <input type="checkbox"/> | ix. Other (give details here) | <input type="checkbox"/> |
| iv. Civil Engineer | <input type="checkbox"/> | | |
| v. Structural Engineer | <input type="checkbox"/> | | |
| vi. Builder | <input type="checkbox"/> | | |

B3 What is your job title? (Please give details here)

B4 How old are you? (Tick one box)

- | | | | |
|-------------|--------------------------|-----------------|--------------------------|
| i. Under 20 | <input type="checkbox"/> | v. 40-49 | <input type="checkbox"/> |
| ii. 20-24 | <input type="checkbox"/> | vi. 50-59 | <input type="checkbox"/> |
| iii. 25-29 | <input type="checkbox"/> | vii. 60 or over | <input type="checkbox"/> |
| iv. 30-39 | <input type="checkbox"/> | | |

B5 In which of the following roles have you gained the majority of your experience in the construction industry? (Tick one box)

- | | | | |
|--|--------------------------|---|--------------------------|
| i. Building operator/facilities management | <input type="checkbox"/> | vii. Lead contractor/project management | <input type="checkbox"/> |
| ii. Owner/landlord | <input type="checkbox"/> | viii. Key supplier | <input type="checkbox"/> |
| iii. Client/lead procurer | <input type="checkbox"/> | ix. Manufacturing | <input type="checkbox"/> |
| iv. Architectural design | <input type="checkbox"/> | x. Other (give details here below) | <input type="checkbox"/> |
| v. Engineering | <input type="checkbox"/> | | |
| vi. Cost consultancy | <input type="checkbox"/> | | |

B6 How long have you worked for this organisation?

- | | |
|---------------------|--------------------------|
| i. 1 year or less | <input type="checkbox"/> |
| ii. 1-3 years | <input type="checkbox"/> |
| iii. 3-7 years | <input type="checkbox"/> |
| iv. 7-15 years | <input type="checkbox"/> |
| v. 15 or more years | <input type="checkbox"/> |

B7 Please specify your membership to professional institutions and your academic/trade qualifications. (Please give details here)

B8 Further comments about the questionnaire content and design (Please give details here)

Thank you for completing this survey. All the responses will be analysed and aggregated to produce an organisational profile which could subsequently be used to identify and enhance the organisation values in Currie & Brown.

It can be completed electronically and emailed back to the following address:

Grace Zhang Research Engineer
Email: grace.zhang@curriebrown.com
Tel: 0121 2122433 ext. 2051

APPENDIX 8: SUMMARY OF MECHANISMS ANALYSIS

Mechanism	Benefits	Sacrifices	Resources
Rewards; Financial Incentive; Bonus scheme; Share the rewards with employees	Staff Morale Staff Retention Motivation Increased output Efficiency Staff loyalty Willing to invest back Attracting new staff Happy clients	Profit Investment elsewhere Disillusioned staff (keeping everyone happy) High salaries	Cash Time evaluating entitlement (appraisals) Time to produce structured policy Management time + Effort Accounting costs/time
Develop company/office Environmental Policy Provide Energy/resource efficiency Recycling facilities Promote 'Green' buildings	Good PR (Internal & external) Demonstrating responsibility Helping the environment Bring in business opportunity Expanding 'Green' Market Office environment Saving on energy bills Staff moral /health	Restricting business opportunities Space loss in offices High Performance cars Profit	Cost of implementation of policy Resources/time to develop policy Reorganisation of offices (space utilisation)
Ensure Adequate Resources Select Best People for Roles	Better work/life balance (happier staff) Healthier work force (physically & mentally) Satisfied clients - Repeat business & increased profits Staff are more confident in their role	Less 'unpaid overtime' - less profit (short term) Increased management time Refuse work if suitable staff are not available	More Training More Staff (Fee earning & Support staff)
Team meetings to discuss info exchange innovation & best practice Best practice & lesson learned at project close Internal knowledge centre	Knowledge built up & retained in the business Staff more knowledge - e.g. clients/sectors/technical Greater staff communication Good marketing tool - internal & external More satisfied staff (better support system) Increased opportunity for uk/worldwide role out of 'new' services	Time/cost of implementation & maintenance	Staff needed to set up & maintain Reduced fee earning time
Developing Active Listening Skills	Better Communication Better understanding - roles - project - work/quality Better Planning Build trust/loyalty Avoid conflict/misunderstanding Greater efficiency - better use of fee earning time	Time/commitment i.e. courses Change in culture/habit Unless Structured - could be just a whinge session	Time Cost i.e. Training Forum - could be technology/telecom/eforum etc Location/Privacy Tea/biscuits/tissues
Provision of company paid annual health check	Healthy Staff - Feel Good Factor /Loyalty Cost saving to staff Cost benefits to economy Negative compensation claims Attract new staff Better 5-a-side matches Encourage healthy living options	Cost to C&B Time for staff check-ups Could result in employee time off	Funding Time HR to administer/or outsource

Learning, training & investing in people	<p>C&B: Enhanced professional status Allows development of niche market Assist image for recruitment Improvement of moral Better communication Increased productivity</p> <p>Personal: Increased skill and competency Enhanced professional status Allows development of niche market Promotion with the company Satisfaction</p>	<p>C&B: Potential loss of resource and money Personal: Payback (time and money) Others may feel left out</p>	<p>C&B: Money-Training means/location - Loss of productivity - Commitment to support - Time/money/mentor</p> <p>Personal: Time Effort Commitment to succeed</p>
Talent management & Career Progression	<p>C&B: Long term improved performance/productivity Increase fees from change out Achieved recruiting/supersession objectives</p> <p>Personal: Job satisfaction Reward of promotion Attainment of level Personal ability</p>	<p>C&B: Time/effort Loss of resource Need for an effective supersession plan Upwards/downwards Potential loss of valuable skills by not follow up the process Personal: Time/effort Pigeon working Potential loss of opportunity if not identified</p>	<p>C&B: PDR Regime that allows identification of talent Self belief Resource strategy that identifies opportunity Resource to manage Personal: Self Belief Desire (commitment to train whatever)</p>
Non hierarchical approach – to the way we treat other people Support from management (open door policy)	<p>Better communication/working environment Channel for innovation Increase productivity/motivation Confidence in staff Staff retention Removing barriers from hierarchy</p>	<p>Time Fee earning capacity Inconvenience (resource planning)</p>	<p>Staff time HR support/Policy support Effort from manager</p>
Produce comprehensive Induction Pack	<p>United front (Currie & Brown people) Better awareness of the company (as a whole) Minimum standards for all staff Better able to spread the word (Marketing) Basic knowledge of company processes Understanding of job (description) & roles Understanding (& buying into) company values Reduce mistakes from lack of knowledge</p>	<p>Time & Money</p>	<p>Time for training Money to set up & organise (& time) & implement</p>
Set realistic and achievable objectives and reward performance	<p>Increase in fee margin with clear objectives Motivated people/team Performance consistency Staff retention/attraction Reward leads to better performance Better use of resource Less stress/better job satisfaction Time to think</p>	<p>Payment of reward-time and resource used Time- Training to set objectives Target too high-demotivated Target too low-demoralised Turn work away- management of expectations</p>	<p>People Time Money Cake!! List of objectives/timeline Resource planning/allocation</p>
Expecting to give and receive honest feedback; Communication through office meetings encourages teamwork and motivation	<p>Better working practice - potential to increase Fee Margin Less Hierarchal structure - level playing field/team share in success Problem shared - Problem solved - team involved in problem solving + colleague skills/protect Appropriate resource planning - time for the training in lieu Motivation/moral boosting Rewarded and feel valued</p>	<p>Time spent in meetings - loss of fee time / resource potential loss of personal time Honesty can hurt! - Be constructive rather than critical Carry Team Member (loss of confidence) to team and individual</p>	<p>Time - Time management Location Cake!! Croissant! Co-ordination Training Role sensation (gender/professional)</p>

APPENDIX 9: SUSTAINABLE WORKPLACE FRAMEWORK AND KEY INDICATORS FOR INDUSTRIAL SPONSOR

Dimension	Key Aspects	Selected Indicators	Key Business Issues	High Priority Behaviours
Environmental	Policies and management systems	The establishment of Environmental policy (Y/N)	Develop company/office Environmental Policy	Ensure working environments are healthy and safe
	Workplace energy management	Office energy consumption (kWh/m ² /yr)	Energy/resource efficiency	
	Workplace water management	Office water consumption (m ³ /person/yr)	(Energy/resource efficiency)	
	Materials & resources consumption	Office paper usage (ream/person/yr)	(Energy/resource efficiency)	
	Emissions, effluents & waste management	% of paper used that has high recycled content	Provide Recycling facilities	
	Recycling rate (%)		(Energy/resource efficiency)	
	Work-related transport	Total Net CO ₂ emissions arising from commuting to/from work and business related travel	Promote 'Green' buildings	
Social	Product & service provision	% of 'green' projects in total project conducted	Provision of company paid annual health check	Communicate effectively and regularly
	Absence of diseases, minimising workplace health risks	Absence days per employee due to work related accidents and illness % of employees receiving employer-provided private health insurance		
	Stable & coherent workplace environment	% of people feel they have been treated equally in work % of employees with disability or belong to ethnic minority group % of people who agree they are able to influence decisions affecting their work Number of staff meetings/team building events organised per year	Non hierarchical approach - to the way we treat other people Support from management (open door policy) Developing active listening skills Expecting to give and receive honest feedback Communication through office meetings encourages teamwork and motivation Produce comprehensive Induction Pack	
	Competency building	Employee professional qualification achievement level Employee Training time (hours/person/yr)	Ensure adequate resources Select best people for roles Team meetings to discuss info exchange innovation & best practice Best practice & lesson learned at project close Internal knowledge centre Learning, training & investing in people Talent management & Career Progression	
	Happiness & wellbeing within workplace	% of people reporting overall job satisfaction ratings, on a scale from 0 to 10 Employee turnover		
Economic	Economic performance	% growth of employee productivity (profit per employee) Median wage for employees Performance related bonus (£/person/yr)	Rewards; Financial Incentive; Bonus scheme; Share the rewards with employees Set realistic and achievable objectives and reward performance	Recognise and reward achievement
	Market presence	Proportion of income and spending on locally-based suppliers		
	Indirect economic impacts	Investments and services provided primarily for public benefit (in monetary term) Extent of indirect economic impacts rated by employees/clients/local community on a scale of 0 to 10		



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