



**Investigating Knowledge Management: Can KM Really Change Organisational Culture?**

Journal:	<i>Journal of Knowledge Management</i>
Manuscript ID	JKM-12-2014-0502.R3
Manuscript Type:	Research Paper
Keywords:	Knowledge management, Organizational Culture, Business strategy, Information Technology, International organizations, Voluntary

SCHOLARONE™  
Manuscripts

Review

## Investigating Knowledge Management: Can KM Really Change Organisational Culture?

### Introduction

Is the union of knowledge management and organisational culture a match made in heaven? It is a mainstay of knowledge management theory that the two are firmly entwined. As an example: 'We believe knowledge management takes us into the realm of corporate culture, reputation, value systems and those other evidences of the social nature of man', (Spender, 2000, p. 158). This article assesses the relationship of knowledge management (KM) with organisational culture, in the context of the voluntary sector, specifically focusing on examples from international development charities.

Considering this interplay, certain questions arise:

- Do organisations have distinctive cultures and if so, are these linked to their sector?
- Can KM programmes play a role in culture change in the voluntary sector?
- What approaches best support KM as a successful agent of cultural change?

The answers to these questions are relevant to those who work in the voluntary sector. The perspectives also have interest for all business sectors, given that public and voluntary sectors have moved closer to the commercial world in recent years, as well as for all KM professionals and academics who study organisational culture.

In the discussion that follows, the first section considers issues of defining knowledge management and 'organisational culture' and identifies insights from the relevant literature. It also highlights the current climate facing voluntary sector organisations. From this, a theoretical framework is established in order to tackle the questions raised.

The second section identifies the research on which this article is based. The methodology incorporated three case studies, which investigated KM in the voluntary sector. The studies took place in three international development charities based in the UK. The research included intensive sessions of interviews, observation and document search; and contacts were continued for a period of up to eight years to allow an element of longitudinal research. The purpose of the study was to identify where KM was working successfully and to consider the factors that contribute to that success. One theme was to identify cultural issues and to delve more deeply into the relationship between organisational culture and KM activity.

A third section presents the key findings from the study. Data relating to the nature of culture and ways it can be changed are presented, together with evidence of when KM has impacted on cultural manifestations. Key points are illustrated with direct quotations from interview data.

Finally, the implications of these findings for organisational leaders, knowledge managers and practitioners are highlighted. The findings are considered within the context of the changing world of KM practice in the voluntary sector, to identify how they can be useful to build successful KM programmes within a diverse range of organisations, each with its own unique organisational culture.

### 1. Conceptual Framework

Every organisation has to demonstrate that it is providing the very best service for its limited resources; and voluntary organisations have a huge demand to meet. As a result, they require the best management techniques, so that organisations can demonstrate that they are using scarce resources effectively. KM is a relatively new management tool to improve the capacity of an organisation and to ensure resources are well used.

1  
2  
3 The voluntary sector has seen considerable change in the early twenty-first century. Global  
4 developments such as terrorism, health threats, economic shocks, natural disasters and climate  
5 changes impact on their world. The dominant political consensus emphasises the need for the  
6 voluntary sector to match commercial models. Charities can no longer assume that they will be  
7 trusted and respected. Schemes to set targets for charitable outcomes as well as monitoring and  
8 evaluation programmes, are now required to demonstrate efficiency to donors, who can therefore  
9 assume more power to influence what programmes are set and how they are achieved, (Bird and  
10 Westley, 2011, p. 17). This is the setting for the KM programmes and organisational culture discussed  
11 in this paper.  
12

### 13 14 ***1.1 Knowledge Management*** 15

16 Knowledge management has been formulated as a specific management discipline since the 1990s  
17 and it has grown in popularity since it was first introduced into commercial firms. From there, it has  
18 penetrated into both the public and voluntary sectors. In the case of the NGO community, major  
19 global funders such as the World Bank and DFID have publically embraced KM and so that is one  
20 more powerful reason for charities to take up KM.  
21

22 A steady stream of books and articles has attempted to define the terms knowledge and knowledge  
23 management, (see list of examples in Jashapara, 2011, p. 13). From many competing definitions, two  
24 working definitions are adopted for this article: 'knowledge is information in context, together with an  
25 understanding of how to use it' (Brooking, 1999, p. 5). Thus knowledge - sometimes viewed as a  
26 resource to be stored and kept available for future use, or more frequently presented in the form of  
27 flows that need to move around the organisation - is an essential element that supports organisational  
28 capacity. KM can be defined as the management perspective, and associated practical activity,  
29 intended to make the best use of the knowledge resources available to an organisation to meet its  
30 productive opportunities.  
31

32 Practical KM includes an extensive list of potential activities. At the extreme, Hull has suggested that  
33 more than one hundred different options exist as activities within the scope of KM (Hull, 2000, p. 60).  
34 Core ideas include: Learning Organisation theory (Argyris, 1978; Senge, 1990); Knowledge Creation  
35 (Nonaka and Takeuchi, 1995); Intellectual Capital (Brooking 1996, Stewart, 1997) and Communities  
36 of Practice (Wenger, 2000). The application of emergent technology infrastructures, such as intranets  
37 and associated knowledge stores, and, more recently, the use of social media, is also a regular  
38 ingredient of KM programmes (see for example, Jashapara, 2011).  
39

40 KM is not a simple formula for organisations to pick up and import. Instead, the challenge is to  
41 consider how KM approaches and associated activities can fit with the existing purposes and  
42 problems facing the organisation in its specific context and environment. Organisational culture forms  
43 a major part of that context.  
44

### 45 46 47 ***1.2 Organisational Culture*** 48

49 The concept of organisational culture was popularised in the 1990s, as books documenting  
50 investigations into the factors that led to organisational excellence, were published, (Miller, 2012). It  
51 is another term that involves highly complex ideas, making definition difficult. One example, in the  
52 words of the eminent author, Hofstede, is: 'the collective programming of the mind that distinguishes  
53 the members of one group or category of people from another' (Hofstede, 2001, p. 9).  
54

55 This example connects the concept of culture to studies of traditional ways of life, where the term is  
56 frequently used in national or tribal contexts. 'Organisational culture' suggests that similar  
57  
58  
59  
60

1  
2  
3 assumptions, values and norms are established within an organisation that then provides the setting for  
4 the conduct of organisational behaviour, relationships and decision making.  
5

6 For the purpose of this discussion, organisational culture is informed by Schein's work, (Schein,  
7 2010). Schein formalises the ideas of norms, values and assumptions into three levels. At the general  
8 level, an organisation will have artefacts that demonstrate the way things are done, visible through  
9 observed behaviours. A second level is the espoused values, which speak of what the organisation  
10 claims is the basis for its actions. At the deepest level, basic beliefs constitute the foundation for the  
11 assumptions on which organisational culture rests.  
12

13 Within one organisation, there may be many subcultures, as groups form around their own common  
14 characteristics. These could be linked to geography, market, hierarchy, function, or internal  
15 divisionalisation. Recognition of these sub-cultures makes the study of organisations much more  
16 complex. They can lead to fragmentation, or the formation of boundaries, or 'silos' that reduce  
17 communication. Nevertheless, culture cannot be understood by fragmenting it into component  
18 elements: 'The critical caveat is that the most valuable knowledge is complex, tacit and deeply  
19 embedded in each other's cultural context,' (Brannen, 2009, p. 96).  
20

21 There is considerable literature on organisational culture and how to assess, categorise and manage it.  
22 Examples include the Competing Values model (Cameron and Quinn, 1999), as well as various  
23 developed assessment tools, (see for example: Harrison 1995; Denison et al, 2012). Some authors  
24 suggest there are key characteristics for different types of organisations, such as 'normative' (Etzioni,  
25 1975, p. 272) or 'support orientated' (Harrison, 1995, p. 195). These characteristics have then been  
26 linked to charities as being congruent with their central purpose.  
27

28 In the last decade, some authors have looked at how KM and organisational culture theory can be  
29 integrated so that the relationship between them is more clearly understood. Alavi et al, (2005)  
30 recognise that KM processes are heavily influenced by the social settings in which they are  
31 embedded. Leidner, (2006) extends this to consider the potential impact of competing values among  
32 organisational subgroups. Rai, (2011) while noting that there is hardly any consensus with regard to  
33 a general theory of organisational culture, uses the competing values model to develop links with  
34 Nonaka and Takeuchi's knowledge creation quadrant. While these attempts draw out commonalities  
35 between the two fields of study, they remain limited to particular elements. Competing Values model  
36 and Knowledge Creation for example, are far from the only theories that underpin the two component  
37 parts. For this study, therefore, these tentative steps to integration are a useful pointer to future theory  
38 development, rather than a model to be applied now. It is perhaps utopian to believe that a model can  
39 be developed that combines the full complexity of these two fields. It is certainly the case that this is  
40 far from achieved yet as the range of cultural variables and potential KM approaches is so great.  
41

42 One key element of studying culture, that renders it far more complex than many descriptions or  
43 measurement systems admit, is to consider how it changes. Culture is habitual behavior but this  
44 characteristic does not mean it cannot alter or evolve over time. 'In this regard, culture is not an  
45 exogenous monolithic force imprinting itself on society, but is constructed on a continuous basis as  
46 individuals navigate, understand and act in organisations,' (Nakata, 2009, p. 13).  
47

48 Culture may be resistant to change, as it is woven deeply into the fabric of the organisation, but in the  
49 current environment, there are huge and complex pressures on organisations, and particularly those in  
50 the voluntary sector, to adapt to new political and economic realities. Charities face questions about  
51 their role in society and how they justify their existence. This factor is particularly true for  
52 international charities. As an example, the pressure to deliver monitoring and evaluation programmes  
53 that demonstrate that they are meeting donor requirements may conflict with an intention to devolve  
54 power to their recipients as the legacy of colonialism is continually questioned. Charities are  
55 encouraged 'to adopt a business model, which especially looks for and rewards efficient utilization of  
56 organisational resources' (Bird and Westley, 2011, p. 11). These pressures may impact on the basic  
57 assumptions of the organisation, and thus pull the culture in very different directions.  
58  
59  
60

1  
2  
3 Schein's work offers a way to assess culture in organisations, using group discussions, (Schein, 2010,  
4 p. 317). When a problem is identified, it is sensible to investigate what elements of the culture help or  
5 hinder solutions. He suggests that the position in an organisation's life cycle is the first thing to  
6 consider: whether it is newly founded, at the midlife stage, or in decline. Different prescriptions are  
7 offered to leaders who want to change and manage an organisation's culture at each stage. The key  
8 mechanisms for mid-life organisations are: promotion from selected subcultures, technological  
9 seduction and infusion of outsiders. Leaders can continue to evolve the culture to build on from the  
10 earlier stage by promoting learning, and other incremental change mechanisms. Schein's framework,  
11 which identifies different stages in the life cycle of individual organisations, is used to underpin the  
12 detailed analysis that follows, (Schein, 2010, p. 273).

## 15 2. Research Methods and Case Study Organisations

17 Previous to this research, attempts to consider the use of KM in UK charities had relied on surveys.  
18 The results established that KM was widely known in the sector and respondents could describe  
19 activities being implemented within their organisations, (Hovland, 2003; Ramalingam, 2004). For this  
20 study it was necessary to go beyond surveys by investigating real case studies, because: 'The case  
21 study is the method of choice when the phenomenon under study is not readily distinguishable from  
22 its context' (Yin, 1993, p. 3). Many KM case studies have been documented, but the literature is  
23 strongly biased towards commercial examples, thus leaving untested sectoral differences, (for  
24 example: Jennex, 2005).

26 In this research project, three case studies in international development charities were undertaken,  
27 including an element of longitudinal research to ensure that the programmes were lasting rather than  
28 short-lived deviations from business as usual (Corfield, 2011). This longitudinal aspect was  
29 particularly valuable, where culture change is not expected to be a short-term activity. It avoids the  
30 hazard that some apparent changes are rhetorical only, for example to please donors, rather than to  
31 make any real impact on the organisation. The opportunity to see if changes became embedded was  
32 accordingly incorporated into the study format.

34 Each charity studied here is viewed through the lens of Schein's three organisational stages. One had  
35 been set up by a charismatic leader; the other two were faith-based organisations. However, by the  
36 time of the study, while their official documentation referenced their founders and founding  
37 rationales, all these organisations had grown into mature institutions, with governance now typical of  
38 the standard for the sector. Hence, they can be classified as mid-life organisations.

40 They were medium sized, being neither small specialised charities, nor major international players.  
41 Each had a head office in the UK, but with employees in multiple countries. This state of affairs  
42 meant that the research needed to include consideration of non-UK bases. For the remainder of this  
43 article, the charities are called Charity A (smaller faith charity), Charity B (secular knowledge product  
44 charity) and Charity C (larger faith charity). Quotations from staff interviews are used to illustrate the  
45 analysis, and each one is identified by the charity code and the number of the interviewee. These are  
46 listed, together with a research schedule, in the Appendix at the end of the article.

48 The research study was set up to identify where KM was working successfully and consider the  
49 factors that contributed to that success in the three charities. Between 2004 and 2007, the main  
50 research was carried out at their organisational headquarters. It involved conducting ten interviews in  
51 each charity with KM personnel and with staff who were participating in KM activities. There were  
52 also observation sessions, including visits to celebrations, trainings, and KM presentations to staff,  
53 which were annotated to highlight aspects of the internal environment and relationships that were  
54 manifest. The research also included study of relevant documentation such as statements of the  
55 organisation's strategy and values, and documents establishing the KM rationale and programme.

1  
2  
3 The main research tool was the interview, where a set of ten open-ended questions were used. These  
4 questions allowed respondents to give their views about factors that supported KM. Inevitably, the  
5 answers produced considerable information about the respondents' views on organisational culture  
6 although the first questions did not prompt this specific focus. There was also one direct question  
7 about the relationship of organisational culture with KM (Question 8) in the structured interview. This  
8 question directly asked for further information specifically relating organisational culture to the KM  
9 programmes. The interviews lasted one hour, but were often extended as the interviewees were very  
10 open and eager to talk about their experiences. All the replies were ascribed and collated to allow  
11 formal analysis of the data and this was related to different factors potentially impacting on KM.  
12

13 For the factor 'organisational culture', answers were classified as spontaneous comments on culture,  
14 or in response to the specific prompting of question 8 and analysed to draw out insights into how  
15 interviewees perceived the relationship of culture with KM. The frequency of this focus was also  
16 identified. The interview analysis was then compared with information from documentation and  
17 observation. As this was qualitative research, the case study methodology was based on the classic  
18 work of Yin and was designed to match the rigorous case study validity criteria set out in his seminal  
19 work, (Yin, 1994).  
20

21 Follow up continued until 2010. By regular return visits to each charity, it could be checked to see  
22 whether each programme was sustained throughout organisational change and staff turnover. Visits  
23 were also made to offices beyond the UK headquarters, so involving a wider range of perspectives on  
24 the KM programme. This mechanism allowed the researcher to consider international cultural issues  
25 in offices far from UK headquarters.  
26

### 27 28 **3. Findings**

#### 29 ***3.1 The Insiders' View of Culture***

30  
31 This article has posed the question: Do organisations have distinctive cultures and if so, are these  
32 linked to their sector? An important initial observation was that no charity had carried out any type of  
33 formal cultural assessment and so there was no established recognition of the dominant contemporary  
34 cultural forms. Instead, people spoke from their personal experience and presented a picture that the  
35 three case study charities were midlife organisations with complex cultures that were not highly  
36 differentiated from other contemporary organisations, despite their different histories.  
37

38  
39 Analysis of the data provided specific insights into what international development charity workers  
40 understand by 'organisational culture'. It was clear from interview responses that staff in each charity  
41 understood the concept and believed it was relevant to their organisation. Some people, particularly if  
42 they were newly employed by the charity, spoke of culture as if it was something that applied to the  
43 organisation but not to them. For example: 'there is a calm and peaceful feel to Charity A but actually  
44 it is a very intense place to work' (A9). Similarly, there is this generalisation from Charity C: 'People  
45 are well meaning but they find loads of reasons for not doing things' (C4). From these examples, it  
46 can be concluded that culture can be experienced as independent of the people working in the  
47 organisation.  
48

49  
50 'NPOs (Non Profit Organisations) seem to be influenced by the ethical or cultural way of thinking of  
51 the particular historical - social context in which they were created and operate. These roots influence  
52 the knowledge management process,' (Lettieri et al, 2004, p. 29). It could not be said that this feature  
53 was demonstrated in the study data for these three charities. There was no suggestion of a simple  
54 dominant cultural influence and only rare references to their roots or founders.  
55

56 Staff in each charity believed there were significant sub-cultures, which affect the way people work  
57 together. Quotations included:

58 'I think that culture is there but whether it is in all teams, I think varies' (A5)  
59  
60

1  
2  
3 'Because internationally each office has its own culture and they do things differently' (B4).  
4 'There are problems of different cultures in different localities' (C10).  
5

6 The question of whether the culture in these organisations could be differentiated from other sectors  
7 was raised by interview participants. One indication of cultural hostility to commercial norms can be  
8 quoted: 'we have business now in job titles. It jars and feels uncomfortable in this set up... It is the  
9 part I am not so happy about' (C5).  
10

11 However, this sentiment was unique among all the statements made. There were a large number of  
12 interview participants who stated that they had worked both in the public and private sectors earlier in  
13 their careers. The majority directly rejected a view of hostility to commercial practice: 'it is better  
14 than five years ago. People then were reluctant to use technology, as it was "too corporate". They  
15 didn't want to embrace the corporate world even if there are good ways to do things', (C6). The  
16 regular movement of the workforce between this sector and the commercial and public sectors  
17 suggested that major cultural differences were unlikely to predominate.  
18

19 It can be expected that there will be some diversity between different sectors: 'it can be seen that  
20 organisational populations will never become the same. That will never be the case simply because  
21 they undertake very different tasks requiring very different organisational settings' (Paton, 2003, p.  
22 34). Cultural differences relating to sector were not pronounced, however, in the views of the staff  
23 members interviewed. The lack of any consistent comments on barriers to KM in these international  
24 development charities means there is no evidence to conclude that their culture was intrinsically  
25 inimical to commercial management practices such as KM.  
26

27 A common theme for all three charities was of constant change: 'One frustration is how much change  
28 is going on. There are so many things happening at once' (C1). In this situation, people need to feel  
29 sure that they are allowed to spend time on overcoming the difficulties associated with doing things  
30 differently. Where there is a conflict of interest, or some ambiguity about priorities, culture can be  
31 expected to restore habitual activity and traditional ways of doing things, unless a strong enough  
32 consensus enables them to change.  
33

34 To summarise, in response to the first question posed in this article: (do organisations have distinctive  
35 cultures and if so, are these linked to their sector?) the case studies confirmed the concept of an  
36 organisational culture and people's willingness to comment on it. They do not allow simplified  
37 generalisations about these organisations' cultures. The evidence does not appear to support the view  
38 that these charities had cultures very different from those of other sectors. It does confirm the  
39 complexity of culture, in that it can vary within one organisation and that culture will evolve with  
40 changes both within and external to the charity itself. The consensus among interview participants  
41 suggests that they believed culture is an important issue for KM programmes, but that it is highly  
42 complex and not something easily described or categorised.  
43  
44

### 45 ***3.2 KM Leading Change: Enhancing Knowledge Sharing***

46

47 The next sections consider the second and third questions posed at the start of this article. (Can KM  
48 programmes play a role in culture change in the voluntary sector? What approaches best support KM  
49 as a successful agent of cultural change?)  
50

51 From each charity, the idea was presented that KM should or would 'change culture'. However, with  
52 no cultural assessment made, there was no base-line for planning change. There was some evidence  
53 that this lack of clarity held back the KM programmes, for example: 'They still talk about the need for  
54 culture change. In some respect they don't know corporately what this should look like. We all have  
55 individual views' (C9).  
56  
57  
58  
59  
60

1  
2  
3 Schein makes clear that it is likely to be more appropriate to look for cultural alignments, and use  
4 these to bring positive change, rather than to assume that the culture has to be altered. He writes: 'one  
5 of the biggest mistakes that leaders make when they undertake change initiatives is to... assume that  
6 culture change would be needed', (Schein, 2010, p. 317). It is likely that challenging underlying  
7 assumptions will cause anxiety and conflict, and so there would have to be powerful reasons to  
8 undertake it. Anyone genuinely changing culture would have to be clear where old ways that had  
9 worked successfully in the past, had become inappropriate and were now required to be unlearned.  
10 This perspective casts an interesting light on the three charities' stated intention to change culture to  
11 increase 'knowledge sharing'.

12  
13 The problem situation had been identified by the leadership and the KM teams; that there was  
14 resistance to cross-organisational sharing. Where there are formal hierarchies, work 'silos' - internal-  
15 facing sub-groups - may dominate an organisation, so that people have little awareness or interest in  
16 the work of other groups. This factor was widely considered to be a problem in all three charities. It  
17 was deemed that the culture needed changing as is suggested in the following quotations:

- 18 • 'Not just how we become more effective managers of an organisation, but how do we learn  
19 between programmes, between teams, between partners.' (A4).
- 20 • 'There is a tendency not to work outside your own space. You work with close colleagues and  
21 cross communication doesn't seem to happen' (B2).
- 22 • 'We began to feel the pain of being a disjointed organisation. We saw the need to work more  
23 as one' (C9)

24  
25 This concern provided the basis for focusing on culture change. However, it was not clear why this  
26 was so firmly asserted, when there was also evidence that sharing was already an integral part of the  
27 culture.

28  
29 KM was identified as matching well with the organisations' stated values, as shown by this quotation:  
30 'One of our core values is in terms of the whole issue of relationships; how we work together; how we  
31 learn from each other. We want to work in partnership, with mutual respect on both sides', (A7).  
32 Values such as these suggest that knowledge will be more easily accepted as an organisation flow,  
33 moving to where it is needed, rather than being seen as a personal commodity, to be hoarded for  
34 personal power. Absence of negative comments was also noticeable – no interview respondent  
35 suggested that the KM programmes in total were inimical to the current, or to an improved,  
36 organisational culture. For example, one interview participant commented: 'Cultural change still  
37 needs to happen. However, this answer is a "yes and no" because there is lots of resistance but when  
38 they do engage there is no stopping them' (C1).

39  
40 This statement does not imply that there is a deep-seated cultural conflict related to knowledge  
41 sharing, but rather that some barriers cause behaviour to deviate from their preferred norms. To this  
42 extent, KM could be viewed as a technique to help remove barriers that were impeding a naturally  
43 sharing culture. KM programmes were accordingly designed to increase sharing by opening  
44 communication channels to allow knowledge-sharing and innovation through cross-fertilisation of  
45 knowledge.

46  
47 The idea of changing culture was widely talked about but there was little clarity about how this was to  
48 be achieved. In Charity B, the role of the knowledge manager is described as: 'my job description  
49 says I am meant to help culture change' (B1). Her sense of confusion is conveyed by a further  
50 comment describing the response of an 'Action Learning Set', when told that the KM job was to  
51 change culture: '[They] asked how this was meant to be done!' This comment was made in a tone of  
52 heavy sarcasm, which implied that the answer had not been revealed to her. Others in the charity  
53 echoed her confusion with this lament, which also highlights the gulf between leadership and the rest  
54 of the workforce: 'They expect it to just happen' (B2).

55  
56  
57  
58  
59  
60



1  
2  
3 The common difficulties seen in all three charities can be illustrated by the KM programmes in  
4 Charity B. Despite enthusiastic endorsement from the CEO, support was not consistent or sustained.  
5 A staff member stated: 'And also perhaps a clearer organisational direction on what knowledge we are  
6 trying to manage and what we should do with it and the priority for it, so that it feeds down' (B6). The  
7 CEO also recognised this problem, stating: 'although we have senior management buy-in, but the  
8 people chosen were low down the pecking order and these people did not feel empowered to change  
9 the culture and our way of working' (B3).

10  
11 Another example of the lack of focus in changing culture through KM was noted. The KM  
12 programme was intent on setting up cross-departmental workgroups and Communities of Practice  
13 (COPs) to counter the 'non-sharing culture'. Yet at a celebratory lunch observed by the researcher,  
14 many staff commented that the recent closure of the canteen had reduced the opportunities in  
15 headquarters to communicate across the separate locations of departments. The shared eating space  
16 had been cut as a savings measure despite widespread belief that it had a proven networking value.  
17 The COPs had already faded, during the time of the study, and served as an example of the ad hoc  
18 nature of the approach to KM-led culture change in Charity B. This unfocused approach was typical  
19 of the three charities' ideas about building a knowledge sharing organisation. However, both the other  
20 two charities did offer some more successful stories.

### 21 22 23 **3.3 KM Leading Culture Change: Learning Organisation**

24  
25 If a generalised intention to change culture was not sufficient in the example of knowledge sharing, it  
26 is instructive to look at Charity A where one aspect of their KM programme was widely judged to  
27 have been successful.

28  
29 There was a belief in Charity A that their approach to work was far too focused on action and too little  
30 on reflection. The pressing nature of the problems they faced, and the desire to make a rapid impact  
31 meant that learning from previous activity was neglected. In the words of one interviewee: 'People  
32 don't really want to take time to review' (A9). Learning from knowledge acquired from previous  
33 experience became an avowed goal of the organisation and the KM programme therefore was focused  
34 on culture change – to develop a 'learning culture'.

35  
36 The evidence for leadership support for KM at senior level came out explicitly from interview  
37 responses, for example: 'The General Director quickly spotted the value or importance of this' (A3);  
38 and 'It is a concept that has come from the top of the organisation... it has been modelled by our  
39 leadership, so it all makes sense' (A7). The KM team were backed strongly by senior leaders who not  
40 only supported change, but slowly began to model it themselves. One person emphasised: 'there was  
41 leadership from the Board and buy-in lower down so that people do prioritise learning. They can be  
42 told about the long-term value' (A6).

43  
44 Accordingly, the KM programme focused on increasing use of the technique called 'learning  
45 reviews', so that knowledge would be given much higher prominence in the formal and 'lived' values  
46 of the organisation. But the tool was not used in isolation. It was combined with complementary KM  
47 programmes to bring about more appropriate understanding of the nature of data, information and  
48 knowledge and also a better recognition of the value of knowledge assets. Technology systems were  
49 also enhanced to allow staff easier access to a 'Lessons Learned' database. In one follow-up session,  
50 it was noted that the CEO was role modelling the learning review technique and checking that senior  
51 managers also gave more than lip service to their support!

52  
53 At the same time, strenuous efforts were made to use local 'champions' to push forward KM ideas in  
54 local teams, as it was seen that formal leadership alone would not be enough. This emphasis  
55 acknowledges that organisational culture may be amenable to top down initiatives but a wider base of  
56 support allows influence to work through informal channels as well.  
57  
58  
59  
60

1  
2  
3 This use of champions for change can be associated with one of the three techniques that Schein  
4 advocates for leading culture change, (Schein, 2010, p. 283). Staff with aptitude for the desired  
5 behaviour, from a chosen subculture, were promoted to a champion role, (with appropriate prestige,  
6 although there was no pay rise) with the intention of raising the profile of the KM work and so  
7 increasing the influence on organisational culture.  
8

9 This approach was given a consistent focus over the years of the study. From tiny steps - from pilot  
10 learning reviews in 2004 through to an observation session in 2008 where champions were given a  
11 training day, and beyond - this incremental approach has been a major part of the KM focus. As  
12 culture includes habitual behaviours and approaches, then this steady focus would appear to be  
13 appropriate.  
14

15 In another interview at Charity A, there is an interesting insight into this focus on changing culture.  
16 As the interview began, the participant was initially negative about the KM programme, but slowly  
17 changed this view: 'firstly, getting people to stop before they do the next activity because we are so  
18 activity-focused, which I think is the nature of the organisation. We are activists, we do like people to  
19 do things, and so getting people to stop is a success in itself', (A5). The interviewee then spoke of the  
20 value of new terminology that enables staff to discuss knowledge and learning issues in a way that  
21 had not been possible before, and which contrasted positively with his experience at previous  
22 workplaces. This interesting exchange highlights both the success of the KM work in Charity A, but  
23 also the difficulty and limitations of cultural change within a relatively short timeframe.  
24

25 It was not a programme that was accurately costed, as activity took place across all teams, often  
26 without formal identification. The fact that the leadership team still prioritise learning reviews today  
27 indicates that the key decision-makers are far from dissatisfied with the outcomes of this process and  
28 the impact it has on the organisational culture. One person in Charity A gave a positive assessment:  
29 'So the fact that it's now pretty much in the culture of the organisation has got to be a good thing'  
30 (A2).  
31

### 34 ***3.4 'Technology Seduction' to Enable Culture Change***

35 Another technique suggested by Schein is what he calls technology seduction, (Schein, 2010, p. 284).  
36 This can be illustrated by the KM programme in Charity C. New technology was explicitly seen as a  
37 change agent, as the Knowledge Manager said: 'The technical platform leads the cultural change'  
38 (C1). In this case the change was intended to bring actual behaviour closer in line with their basic  
39 assumption: that the charity should put the requirements of its recipients as the central focus in  
40 decision making. At the time of the study, Charity C wanted to alter the way that decisions were made  
41 to include much wider participation from offices in all their far flung locations.  
42

43 Most importantly, the technology was not expected to change the organisation without a solid focus  
44 on its interface with the people using it. A wide ranging campaign to project the implications of the  
45 new way of working was initiated, and training was delivered through central programmes as well as  
46 local champions who could cater for differences in local cultures.  
47

48 The project was cross-organisational and praised by project participants and those who subsequently  
49 used the product. A staff member from the technology team said: 'It was one of the best  
50 collaborations because it was not seen as a business project, nor was it seen as an IT project. It was  
51 seen as an organisational priority', (C2). Leadership in the charity was less actively involved in  
52 support in comparison to Charity A, but it was commented: 'The corporate directors have kept faith,'  
53 (C8).  
54

55 It is worth noting here that, within KM theory, a dichotomy of culture and technology is often  
56 invoked. However: 'the cultural dimension encompasses technology and implicitly rejects the dualism  
57 of much current knowledge management... The distinction was useful for a period to drag people  
58  
59  
60

1  
2  
3 away from thinking that knowledge management could be achieved solely through the procurement of  
4 technology. However, it now disguises a vital aspect of any human culture; we are first and foremost a  
5 tool-making and tool-using animal. Our culture makes little sense without taking information  
6 technology, the latest manifestation of our tool-making ability, into account' (Snowdon, 2000, p. 240).  
7 The focus on technology in Charity C was appropriate as a culture change agent, given technology's  
8 central role in the contemporary workplace. If the new software was used successfully, it would be  
9 part of almost every staff member's daily routine. The need to embed the new software was explicit  
10 and appropriate: 'there has been training as there is a culture issue. People have to understand,  
11 believe, and bother. If you are part of a small group and you all know one another, why would you  
12 want to share? You need a culture across the organisation that sees, understands and benefits from it'  
13 (C2).  
14

15 Prolonged observation during the course of the study suggested that the new technology had indeed  
16 become embedded and was widely in use at the end of the study period, both in the UK and in the  
17 African office that was visited. Once again, there were no accurate figures to provide an evaluation of  
18 the return on capital, as the costs were not simply incurred for the new technology. The large financial  
19 investment was also matched by the costs of time for the customised training and learning from a  
20 huge range of staff across the organisation.  
21

22 Cultural change is a long-term activity which takes time to unfold. However, within the span of these  
23 observations, there were signs that the project had impacted positively. As one person, who was not  
24 part of the implementation team suggested: 'I can see specific areas where the project has contributed  
25 if you are thinking about our silo mentality. If you work in the Marketing Team, that is where you  
26 work and there are still not really any linkages. The knowledge management project has behaviour  
27 and tools to encourage people to stop these limitations. I think this is good' (C9). These changes were  
28 interpreted as transformative: 'So I think there has been a culture change and I suspect throughout the  
29 organisation that change has had variable effects' (C7). This comment is a reminder that a global  
30 organisational culture change was profoundly complicated, given the financial limits, the technology  
31 variations, and the variety of cultures acknowledged within each charity.  
32

33 Interview participants suggested some of this variety of outcome was due to practical constraints.  
34 There was concern about how much change would impact on some staff in Africa where enthusiasm  
35 for new technology providing new ways of working, would be challenged by poor local infrastructure.  
36 'There are problems to do with connectivity. These are issues outside our control. Rwanda, Burundi  
37 and the Democratic Republic of Congo have huge issues. You can throw more money at it but there is  
38 still no regular power so this does not apply. Most cannot access the intranet and if they do it is very  
39 slow' (C5). This problem still has a serious impact on the growth of a more global work culture. It  
40 highlights the resource disparity between the voluntary sector and the commercial organisations with  
41 similar global reach where these tools have been initiated by KM specialists. One poignant comment  
42 was made: 'But there are now cost cuts so you have a fantastic [*intranet and document sharing*] site  
43 with not enough resources' (C7).  
44

45 Despite these problems, in countries around the world where IT infrastructure was in place, which  
46 included most of the charity's offices, it can be argued that a new way of working was becoming the  
47 new norm. International information and opinion had become as easy to access as central UK  
48 knowledge, with the availability of stored documentation and instant cross-organisational  
49 communication facilitated. This ability to speak and share across the globe could be seen as the start  
50 of a major change. Perhaps it was less a fundamental culture change at the deepest level but the  
51 charity had begun to put in place mechanisms that would give more weight to empowering their  
52 charity recipients rather than simply providing for them, in a development that took it beyond its  
53 founding mission. In Charity C, this KM programme had the potential to bring observed behaviour  
54 closer to these new espoused values.  
55

56  
57 The final sections above have looked at the second and third questions posed at the start of this article:  
58 (Can KM programmes play a role in culture change in the voluntary sector? and What approaches  
59  
60

best support KM as a successful agent of cultural change?) to identify examples where culture change was intended as one outcome of KM programmes and to consider the approaches they illustrated.

#### 4. Conclusions

From this study it can be seen that the KM programmes included short-term changes that may be easy to accomplish. Communities of Practice were set up, sharing systems put in place, successful learning reviews completed and their conclusions reused later by other teams. But while these have value at the time, they are only relevant to organisational culture if they embed new ways of working. Some of the KM initiatives did not meet this test and the KM programmes, ostensibly intended to change culture, were based on incoherent views about the prevailing situation.

But the power of persistent leadership, using a variety of methods to promote appropriate behaviours, together with understanding of the values and assumptions underpinning these, did bring change. So also did the use of well-implemented technology that meets users' daily needs. Together with encouraging champions to promote changed patterns of work practice across an organisation, they provide evidence that KM interventions can lead to changes that effectively link to individual and group work routines. These can be labelled 'culture change' in the sense that they were premised on embedding new ways of working. The study draws out six implications for KM managers and organisation leaders who plan to use KM as a culture change agent.

1. Leaders can use KM programmes and tools to promote a specific culture change but this requires dogged persistence as well as the use of a wide variety of tools and approaches, backed by a clear and sustained rationale.
2. Promoting and supporting people who have the right attitudes and aptitude to act as champions across the organisation is a recommended way to encourage local penetration.
3. 'Technology seduction' can support culture adaptation but again, this approach will not work in isolation and must be accompanied by training and related activity to ensure that people can absorb the new behaviours into everyday work practices.
4. KM programmes can be presented as conforming to simplistic notions of culture change. Removing barriers to improved performance is valuable but does not alter the long-term assumptions, approaches and norms that constitute organisational culture.
5. If the organisational culture is identified as needing to be changed, a formal assessment of what that cultural aspect is and why it is no longer appropriate can be used.
6. The use of short-term activities and exhortation to alter deep-seated values and assumptions is not recommended!

Schein notes that culture change can focus on two aspects – internal integration and external adaptation. This duality provides an interesting lens to consider further these emergent findings.

##### 4.1 Internal Integration

The intricacy of culture within a mature organisation does make KM a suitable channel to lead change where specific adaptation is desired. It is designed to work across hierarchical structures in a cross-organisational way and so can provide programmes which can engage different sub-cultures in a thoughtful and consciously aware manner. However, in this specific organisational population, the suggestion that KM will change cultures to something 'better' raises ethical questions. Changing the

organisational culture could conflict with the obligation to respect local cultures; such an obligation being embodied in the charities' values.

One suspicion is that the dominant culture will be found in the UK headquarters and then assumed to be the 'best' or at least the most practical. It was an indication of the difficulty that faced the KM teams that none of the charities demonstrated any serious focus on the challenge of working with populations using different languages. Despite the awareness that their cultures were not at all homogeneous, there was no recognition that cultural variety might form a positive aspect of their KM programmes. There was no suggestion that Schein's view that 'diversity increases adaptive capacity' was understood, (Schein, 2010, p. 284).

Customisation and local participation which allows people time to absorb changes into their view of how things should be and most importantly how it would enable their own work to be delivered more effectively, is the key to attempting to bring about cross-organisational culture change to produce a more integrated global work culture. This requirement means that organisations need to take time to assess strengths and weaknesses in the many varieties of cultures found within. Unless that point is taken into account, there is a clear risk that KM schemes will be insensitively applied in a top-down manner; thus tempting staff to ignore or bypass them.

A second issue was to look at contradictions between espoused values and more mundane practicalities. Despite the protestations that KM was needed to change culture by reducing 'silo' working, in practice there may have been stronger pressures to maintain the current hierarchical power bases. A comment was made: 'they say it is important and worth investing in, but...' (B4). The rhetoric was stronger than the practical support for the KM teams, when structural change was required.

These observations suggest that KM does not only have the apparently bland intention of 'changing culture' but, to be successful, will fundamentally change power relationships. The 'silos', that many people viewed as a problem for knowledge-sharing, are the domains of senior managers, who have built up their power and expect the loyalty of their subordinates. The empowerment of knowledge workers is not necessarily going to be easy to assimilate. Culture change involving redistributing power may involve hidden agendas that complicate knowledge-sharing schemes.

As an example, efforts to use technology to find new ways to bring the voices of the poor directly to influential western audiences may be identified strongly with espoused values, but some caution may exist at this loss of the organisation's own power to mediate those voices. More mundanely, some barriers to sharing may be due to local comfort zones or indeed, practical reasons such as to reduce information overload.

Charity leaders espouse altruistic motivations and, while hoping to help poor people in the short-term, must be aware of long-term consequences for the recipients and the rest of the world. But individuals will also be concerned about their own careers and relative remuneration. Charities based in the UK will by default carry with them many of the trappings of the contemporary culture of the rich western world, as no organisation is isolated from its own economic and cultural realities. These considerations help to explain why blocks to knowledge-sharing continue to be challenges, despite elements of the KM programmes achieving success. KM is part of the political realities of organisational life as much as any other aspect.

#### ***4.2 External Pressures***

Highly noticeable in the interviews with KM specialists and participants was a lack of discussion of issues arising from external pressures that are constantly shifting and influencing the evolving internal culture. The dominant political and business management pressure in the UK has been for more 'business-like' ethos and behaviour. The introduction of systems of annual management bonuses and

1  
2  
3 individual performance-related pay are percolating through the voluntary sector and this change can  
4 encourage short-term and individual motivations to move to the fore. These concerns may not match  
5 well with long-term programmes of KM and culture change.  
6

7 It can be suggested that, as charities promote an influx of workers from the commercial sector in order  
8 to show their business-friendly culture, this will act as the third of Schein's methods for achieving  
9 culture change; 'infusion of outsiders', (Schein, 2010, p. 287). By making intentional selection  
10 choices that promote people who have worked in commercial organisations, differences of cultures  
11 across sectors will be consciously reduced. If it is accepted that private, public and voluntary  
12 organisations start from different basic beliefs based on their origins, and their different functions, this  
13 trend may provide more fundamental culture change than the internally-based efforts of the KM  
14 teams. Yet although it was recognised that there was a change in attitudes to commercial practices,  
15 there was little acknowledgement that external pressures were also a factor in evolving cultural  
16 change.  
17

18 This study provided case study data to illuminate the KM activity of some chosen voluntary sector  
19 organisations, looking internally at their intention to change culture. Schein's second strand of culture  
20 change, external adaptation, points to a need for more research into KM's potential impact on  
21 organisational culture in the UK voluntary sector to investigate how its contribution integrates or  
22 conflicts with the rapidly changing external environment.  
23

### 24 **4.3 Summary**

25 This article has described the outcomes of three case studies that investigated the relationship between  
26 KM and organisational culture. It found that KM does indeed impact on culture. But the relationships  
27 are always complex. Where leaders plan to use KM for culture change, there has to be understanding  
28 of these complexities and a commitment to using a variety of complementary activities over a  
29 sustained period of time. Nothing in the study identifies cultural change as a factor of organisational  
30 life that stands alone. Culture is intricate and amorphous. It does not make sense to try to manipulate  
31 it directly for its own sake. For staff in any organisation, simply being exhorted to transform 'the  
32 organisational culture' is likely to lead to cosmetic changes on the surface, rather than to any  
33 worthwhile new behaviours. Instead, work programmes that integrate well with daily routines and  
34 which enable new ways of working to become embedded are the key to making internal cultural  
35 changes that last.  
36  
37

38 The study was necessarily limited to one organisational group – international development charities.  
39 The results therefore have to be considered in that context and can only be applied to other fields  
40 where there are commonalities of context. Hence it's always wise to realise that there is no one  
41 'magic' solution which can be applied in all variant circumstances. Nonetheless, since currently the  
42 voluntary sector is under pressure to move much closer to common working practices within business  
43 and public organisations, there are clearly some overlaps.  
44  
45

46 Finally, it is essential to note that all organisations are working with, and adapting to, a high-pressure  
47 external environment with potentially transformative new knowledge-handling technology becoming  
48 regularly available. That situation is unlikely to change. So there certainly remains room for further  
49 research to consider the twin challenges, identified by Schein: internal change and external adaptation.  
50 How organisations adapt, or fail to adapt, make for perennially interesting questions, whose answers  
51 have important practical implications. In the meantime, the findings analysed here have a wider  
52 resonance, if applied with appropriate sensitivity to the local context. The continuation of rapid  
53 change makes the challenge of understanding the intricate relationships between KM and  
54 organisational culture all the more essential.  
55  
56  
57  
58  
59  
60

## Bibliography

- Alavi, M., Kayworth, T. and Leidner, D., (2005), An Empirical Examination of the Influence of Organisational Culture on Knowledge Management Practices, *Journal of Management Information Systems*, Vol. 22, No. 3, pp. 191-224.
- Argyris, C. and Schon, D., (1978), *Organizational Learning: A Theory of Action Perspective*, Addison-Wesley, Massachusetts.
- Bird, F. and Westley, F., (eds), (2011), *Voices from the Voluntary Sector: Perspectives on Leadership Challenges*, University of Toronto Press, Toronto.
- Brannen, M., (2009), Culture in Context: New Theorising for Today's Complex Cultural Organization, in Nataka, C. (ed.), *Beyond Hofstede: Culture Frameworks for Global Marketing and Management*, Palgrave Macmillan, Hampshire.
- Brooking, A., (1999) *Corporate Memory: Strategies for Knowledge Management*, International Business Press, London.
- Brooking, A., (1996), *Intellectual Capital*, International Business Press, London.
- Cameron, K. and Quinn, R., (1999), *Diagnosing and Changing Organisational Culture*, Addison Wesley, Reading.
- Corfield, A., (2011), *Knowledge Management in International Development Charities*, Unpublished PhD Dissertation, Open University, Milton Keynes.
- Denison, D., Hooijberg, R., et al. (2012), *Leading Culture Change in Global Organisations: Aligning Culture and Strategy*, Jossey Bass, San Francisco.
- Etzioni, A., (1975), *A Comparative Analysis of Complex Organisations*, Free Press, New York.
- Harrison, R., (1995), *The Collected Papers of Roger Harrison*, McGraw Hill, London.
- Hofstede, G. H., (2001), *Culture's Consequences: Comparing Values, Behaviours, Institutions and Organizations Across Nations* (2nd edn.), Sage Publications, California.
- Hovland, I., (2003), *Working Paper 224, Knowledge Management and Organizational Learning: An International Development Perspective*, Overseas Development Institute, London.
- Hull, R., (2000), Knowledge Management and the Conduct of Expert Labour, in Prichard, C., Hull, R., Chumer, M., and Willmott, H., (eds), *Managing Knowledge: Critical Investigations of Work and Learning*, Macmillan Business, London.
- Jashapara, A., (2011), *Knowledge Management: An Integrated Approach*, Prentice Hall, Essex.
- Jennex, M., (ed), (2005), *Case Studies in Knowledge Management*, Idea Group Publishing, Hershey.
- Leidner, D. and Kayworth, T., (2006), A Review of Culture in Information Systems Research: Toward a Theory of Information Technology Culture Conflict, *Management Information Systems Quarterly*, Vol. 30, No. 2, pp. 357-99
- Lettieri, E., Borga, F. and Savoldelli, A., (2004), Knowledge Management in Non-Profit Organizations, *Journal of Knowledge Management*, Vol. 8, No. 6, pp. 16-30.
- Miller, K., (2012), *Organisational Communication: Approaches and Processes*, (6<sup>th</sup> edn), Wadsworth, Ontario.
- Nakata, C., (ed.), (2009), *Beyond Hofstede: Culture Frameworks for Global Marketing and Management*, Palgrave Macmillan, Hampshire.
- Nonaka, I. and Takeuchi, H., (1995), *The Knowledge Creating Company: How Japanese Companies Create the Dynamics of Innovation*, Oxford University Press, Oxford.
- Paton, R., (2003), *Managing and Measuring Social Enterprises*, Sage, London.
- Rai, K., (2011), Knowledge Management and Organisational Culture: A Theoretical Integrative Framework, *Journal of Knowledge Management*, Vol. 15, No. 5, pp. 779-801
- Ramalingam, B., (2004), *Knowledge Strategies: From Organizational Policy to Organizational Practice*, ODI Research and Policy, London.
- Schein, E., (2010), *Organisational Culture and Leadership*, (4<sup>th</sup> edn), Jossey-Bass, San Francisco.
- Senge, P., (1990), *The Fifth Discipline: The Art and Practice of the Learning Organisation*, Doubleday, New York.
- Snowdon, D., (2000), The Social Ecology of Knowledge Management, in Despres, C. and Chauvel, D., (eds), *Knowledge Horizons: The Present and the Promise of Knowledge*

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

*Management*, Butterworth-Heinemann, Cambridge.

Spender, J.-C., (2000), *Managing Knowledge Systems*, in Despres, C. and Chauvel, D. (eds), *Knowledge Horizons: The Present and the Promise of Knowledge Management*, Butterworth-Heinemann, Cambridge.

Stewart, T., (1997), *Intellectual Capital, the New Wealth of Organisations*, Nicholas Brealey, London

Wenger, E. and Snyder, W., (2000), *Communities of Practice: The Organisational Frontier*, *Harvard Business Review*, Jan/Feb, pp. 139-45.

Yin, R. K., (1993), *Applications of Case Study Research*, Sage, California.

Yin, R. K., (1994), *Case Study Research: Design and Methods*, (2nd edn.), Sage, California.

For Peer Review



## Appendix

<b>Interview Subjects plus codes:</b>		
<b>Charity A</b>		
A1	Knowledge Manager	
A2	Learning Officer	
A3	Senior Manager	
A4	Head of Overseas Operations	
A5	Evaluations Officer	
A6	Support Manager	
A7	Communications Manager	
A8	Head of Finance	
A9	Head of HR	
A10	Head of IT	
<b>Charity B</b>		
B1	Knowledge Manager	
B2	Image Librarian	
B3	CEO	
B4	Senior Manager	
B5	Research Officer	
B6	Operations Officer	
B7	Communications Manager	
B8	Web Manager	
B9	Quality Administrator	
B10	Head of IT	
<b>Charity C</b>		
C1	Knowledge Manager	
C2	KM - IT Liaison	
C3	Senior Manager	
C4	Overseas Manager	
C5	Overseas Administrator	
C6	Knowledge Champion	
C7	Communications Officer	
C8	Head of Finance	
C9	Head of HR	
C10	Head of IT	
<b>Schedule of Visits</b>		
<b>Charity A</b>		
Original case study	12 / 2004	
Follow up visit	11 / 2006	Discussion with knowledge manager
Survey and visit	04 / 2007	Facilitators observation and staff survey
Follow up discussions	07 / 2007	Interview with knowledge manager and trainer
Follow up visit	03 / 2009	Discussion with knowledge manager
Follow up visit	03 / 2010	Discussion with knowledge manager

<b>Charity B</b>		
Original case study	07 / 2005	
Follow up visit	08 / 2005	Presented report
Visit to Peru office	01 / 2006	Interviewed Director and three local staff
Follow-up discussion	06 / 2006	Discussion with knowledge manager and head of IT
Follow-up visit	11 / 2008	Discussion with new knowledge manager
Follow up visit	02 / 2010	Discussion with knowledge manager
Visit to Nairobi	03 / 2010	Interviewed staff in local office
<b>Charity C</b>		
Original case study begun	11 / 2006	
Case study completed	03 / 2007	
Follow up call	06 / 2007	Discussion with knowledge manager
Follow up visit	07 / 2009	Discussion with Head of IT/
Follow up visit	02 / 2009	Knowledge / communication managers
Visit to Nairobi	03 / 2010	Interview with staff in local office

For Peer Review

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60