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Abstract
This paper describes the latest research in Knowledge Management (KM) that is being carried out at the headquarters of The Danwood Group, Lincoln, UK as part of a collaborative doctoral research initiative with the Department of Computer Science, Loughborough University. The primary aim of this project is to develop a practical, business-oriented approach to managing knowledge within an organisation. The four key areas that have been recognised as critical to the success of a KM scheme are ‘strategy’, ‘technology’, ‘measurement’ and ‘culture’. The latter is being explored in this paper, where the authors give an insight into the difficulties of deploying KM in an organisation that is characterised by its traditional ‘role-based’ culture and highly hierarchical management structure.

Performing research in a commercial environment instantly highlights the need for practical outcomes. Danwood, like many companies that invest into research projects, want to see tangible business-term results. However, the benefits of KM are hard to demonstrate on such strict timescales, which would inherently result in a growing resistance by top-level management towards further investment.

This paper suggests ‘KM activities’ should be labelled with terms that are relevant and conceivable by the organisation and progressively integrated with mission-critical business processes that will generate faster bottom-line results. The aim is to highlight KM as creditable for these benefits and secure future investment into an ‘official’ KM scheme. The additional advantage of this approach is that it facilitates the need for a cautious, moderately paced adaptation of KM techniques to the particular organisational culture.

Keywords: Knowledge Management, Organisational Culture, Change Management

Introduction
This paper describes the research in knowledge management (KM) that is being carried out at the headquarters of The Danwood Group, UK. The primary aim of this research project is to develop a practical, business-oriented approach to managing knowledge within the organisation. The focus of this paper is set specifically on the cultural aspects of initiating KM within a traditional ‘role-based’ organisational culture. Aligning KM to specific business goals, nurturing the evolving relationship between KM and organisational culture, gaining the support of senior management, adapting to the ‘corporate vocabulary’ and building strategic relationships with the workforce are all recognised as important tasks in successfully deploying KM in a commercial environment.

Company Background
Established in 1971, the Danwood Group is one of the largest independent suppliers of total office solutions in the UK & Ireland, with 700 employees in 20 regional sales and service centres and a current turnover in excess of £70 million. Danwood’s ‘core business’ resides in the print output capture market, the sales and service of reprographic machinery as well as providing document and print management consultancy. Danwood’s Service Division is an ISO-accredited National Authorised Service Provider and is currently responsible for the maintenance of 54,000 machines that produce 250 million prints per month.

Goal-Oriented Knowledge Management (GOKM)
A thorough review of the plethora of literature that addresses topics relevant to KM, from a variety of perspectives, has led to the conclusion that the KM discipline seems to be suffering from high levels of fragmentation. This variation appears in terms of how KM has been perceived and defined, as well as how KM approaches have been classified and KM strategies have been directed. The competing schools of thought in KM (e.g. knowledge creation, business transformation, systematic orientation etc), which stimulate division in the field, are mostly the result of the natural variation of background, industry and motives of researchers and practitioners who make contributions to the literature. However,
this contradiction of opinions is considered necessary for any emerging discipline to evolve. In 2001 Walsham states that attempting to share knowledge with others is only valuable if one’s views differ from that of the other parties in the exchange, since one learns nothing from total homogeneity of view. This statement seems sensible, although like many others it is only true within logical boundaries. The large gamma of opposing views regarding KM seems to have exceeded these boundaries to the point of becoming counter-productive. Roy (2001) supports this observation by stating that KM has been defined by management consultants, redefined by computer scientists and undefined by marketers of software products.

An analysis of the various definitions for KM in the relevant literature has led to the conclusion that it would be impractical to attempt to provide yet another generic definition. Instead, the authors would like to suggest that it is more important to focus on the purpose of managing knowledge, define the context within which it takes place and focus on achieving practical outcomes. In 2001 McDermott and O’Dell underline that the main reason KM programs fail is a lack of a clear connection with a business goal. Ellis (2003) agrees and also underlines the importance of being able to demonstrate the beneficial results of managing knowledge in a commercial environment within a relatively short amount of time.

Over the past decade researchers and practitioners have attempted to define a generic KM framework and guidelines that will have the ability to fit into any organisational environment and fulfill any selection of goals and objectives. So far, attempts to achieve this have not been fruitful due to the multiplicity of situations and circumstances where the application of KM would have the potential to bring benefits. The authors suggest that there should be a shift from attempting to provide a generic KM solution to pursuing a more adaptive approach. This has led to the conceptualisation of the GOKM ‘adaptive’ model (see Figure 1). GOKM incorporates multi-perspective guidelines that take into account strategic, cultural and technological aspects of KM as well as having an in-built mechanism for continuous performance measurement and realignment to organisational goals. Its ‘adaptive’ properties are demonstrated during the implementation phase (see Figure 2).

![Figure 1](image)
The GOKM ‘Adaptive’ Model
Introducing ‘Knowledge Management?’ to the Organisation

Introducing KM to an organisation can be a very difficult task. It often requires a lot of patience and a series of tasks to be carried out in order to create the right environment for KM to grow. One of the most paramount tasks is to attempt to understand the organisational culture and assess the organisational climate, as these will most definitely have an impact on how the KM initiative will be designed. It is
equally important to secure board-level commitment and sponsorship, integrate KM initiatives with critical business needs and build strategic relationships with the workforce. In addition, adapting to the ‘corporate vocabulary’ will also have a major impact on the success of initiating KM in the organisation.

Understanding Organisational Culture and Climate

In 2003 Janz and Prasarnphanich explain that organisational culture is believed to be the most significant input to effective KM and organisational learning in that corporate culture determines values, beliefs, and work systems that could encourage or impede learning (knowledge creation) as well as knowledge sharing (e.g., Alavi & Leidner, 2001; Gold, Malhotra, & Segars, 2001; Leonard, 1995; Slater & Narver, 1995), and ultimately, decision making (Kettinger & Grover, 1995; Schein, 1985). In 2004 Jashapara also recognises the fundamental impact that organisational culture has on the deployment of KM and that it is therefore essential to perform an assessment that identifies which broad category it represents. He explains that there are numerous configurations of organisational culture, but also that it is not expected that organisations will always fall into just one general category. However, these characteristics may help organisations to understand their social environments and act accordingly when deploying KM. Jashapara seems to favour Handy’s (1985) typology of organisational culture:

Power culture is characterised as a web with a person or small group of people at the centre. There are few rules and people tend to act politically and are more concerned about ends rather than means. Such organisations can react quickly to environmental changes but may suffer from high turnover rates if suitable people are not recruited.

Role culture is characterised by bureaucracy where rules, procedures and job descriptions tend to predominate. These organisations are successful in stable environments but may have difficulties adapting to more turbulent environments.

Task culture is characterised by project or matrix organisations that bring together the appropriate resources and competence required for effective team functioning. Mutual respect is based on ability rather than status or age. These cultures can be highly effective for innovative projects but are less successful where there is an emphasis on cost rationalisation and economies of scale.

Person culture is characterised by individual autonomy and collective action based on fulfilling individual self-interests. Individuals decide on their work allocations rather than a central body. Examples of person cultures may be found in academia, among architects or barristers.

There are numerous methods for assessing organisational culture. Some of the most commonly used are survey-based and fall into the following two categories (Jashapara, 2004; Ashkanasy et al., 2000):

Typing surveys that classify organisations into particular typologies such as Handy’s. Such instruments attempt to generate a number of organisational culture ‘types’ that are linked to specific values and behaviours. These surveys can provide senior managers with snapshots on their current positions and their desired outcomes from a cultural change management programme. The drawbacks with these typing surveys is that they assume that organisations fit neatly into strictly defined categories rather than conforming to a number of different types that demonstrate their uniqueness. The different types do not assume any continuity between the different typologies.

Profiling surveys aim to develop a profile of the organisation on multiple categories of norms, behaviours and values. There are three types of profiling surveys, namely, effectiveness surveys, descriptive surveys and fit profiles. Effectiveness surveys tend to assess organisational values associated with high levels of performance. Descriptive surveys purely measure organisational values. Fit profiles tend to assess the level of fit between an individual and an organisation.

McDermott and O’Dell (2001) explain that, in many successful KM initiatives, it was not necessary to do an in-depth analysis of organisational culture. It was sufficient to identify those core values that would have the most potential to shape and support the KM effort. Based on this, a series of ‘typing’ surveys and interviews took place at Danwood, the outcome of which was that it could be loosely placed in Handy’s typology as a traditional ‘role-based’ culture, where rules, procedures and job descriptions tend to predominate.

Once Danwood’s organisational culture had been identified in broad terms, it was time to attempt an assessment of the organisational climate. In general, an organisation’s climate is thought to be a direct behavioural manifestation of organisational culture, which is a deeper and less consciously held set of cognitions and affective attachments (Janz and Prasarnphanich, 2003; Mikkelsen & Gronhaug, 1999; Schein, 1985). Culture and climate often measure the same phenomenon – organisation reward systems, organisational support, and the like – but climate is considered the more visible and adaptive of the two (Janz and Prasarnphanich, 2003; James & Jones, 1979).

According to Janz and Prasarnphanich (2003) the most significant and commonly studied dimensions of organisational climate are Risk, Reward, Warmth and Support. Risk measures the orientation of the organisation toward undertaking potentially innovative initiatives with uncertain outcomes.
Deploying Knowledge Management and Securing Future Sponsorship within a Highly Hierarchical ‘Role-Based’ Organisational Culture

Higher levels indicate that an organisation is comfortable with risks and does not penalize workers for taking them. From a KM perspective, an organisation’s incentive system that encourages risk taking and experimentation would be required to support learning as well as knowledge creation and dissemination (Janz and Prasarnphanich, 2003; Mikkelsen et al., 2000; Davenport & Prusak, 1998; Garvin, 1993). Reward is a measure of how well the organisation recognizes employee performance with rewards. Warmth is a measure of the friendliness of the atmosphere in the organisation. Finally, support is a measure of the organisation’s interest in the welfare of the employee.

An adapted version of Janz and Prasarnphanich’s (2003) organisational climate measurement scale was used to measure risk, reward, warmth and support at Danwood. The results indicated that Danwood’s business has been built by taking calculated risks at the right time, rewards and encouragement usually outweigh threat and criticism, assistance by management and co-workers is readily available and by majority there is a friendly working atmosphere among people in the organisation.

Adapt KM to Culture or Vice Versa?

There are quite a few articles in KM literature that encourage the implementation of a change management program that aims to make an organisation’s culture more KM-friendly, prior to deploying any kind of KM initiative (e.g. Balogun and Jenkins, 2003; Rajan and Chapple, 1999; Gurteen, 1999). However, in a commercial environment it would be very hard to secure time and investment for such an exercise. Ellis (2003) confirms this and suggests that it is important to adapt the KM effort in accordance to the existing culture in order to achieve business-term results. McDermott and O’Dell (2001) agree with this notion and add that even when knowledge sharing is being used as a means of changing the organisation, it is more effective to first match the design of the KM scheme to the core values and style of the organisation. By building on these core values, there are more chances of creating a culture that supports knowledge sharing. Most of the organisations that they studied, including Ford, Lotus and AMS, did not describe their KM scheme as a new direction, a change program or a shift in values, even when they did engender a shift in values and behaviour. Instead, they described it as a way to enable people to pursue a core value of the organisation more fully.

The authors agree that adapting the KM effort to the particular organisational culture is a useful method for quickly attracting interest and support. This approach also aids the culture in becoming more mature, in terms of KM, at a faster rate. In addition to the above, the authors suggest that this is a process that goes through several iterations. Since it is recommended that the design of a KM initiative should be oriented towards a continuously evolving culture, it is also suggested that the KM initiative should be re-adapted accordingly (see Figure 3). In other words, as the KM maturity level of the culture and organisation rises, the design of the KM initiative should also become more advanced.
Securing Board-Level Commitment and Sponsorship

Gaining the support of senior management, preferably at board level, is essential to the endurance and, ultimately, the success of a KM initiative. This is true mainly because it seems to be the only way to ensure that the necessary investment, resources and political influence are readily available. One of the most common methods of attempting to initiate KM in organisations seems to have been by ‘evangelising’ the positive impact it could have. However, as Ellis (2003) explains, senior management tends to instinctively respond to this kind of attempt with questions regarding budgets, resources, additional workloads and return-on-investment. Therefore, this approach has shown little evidence of success. In the majority of cases it seems to have resulted in ‘overselling’ the benefits, especially in relation to business timescales, and the idea is either never taken up or dropped very soon.

By examining successful KM initiation methods and applying similar principles at Danwood, the authors have concluded that the two key methods in gaining senior management’s support for KM are a.) integrating KM with critical business needs and b.) adapting to the organisation’s ‘corporate vocabulary’. Ellis (2003) demonstrates an interesting example at HSBC bank where he framed KM as a method of minimising business risk, which is a matter of paramount importance in the financial services industry. This resulted in securing support for a range of KM activities. McDermott and O’Dell (2001) also provide a good example with Ford 2000, a business initiative at Ford, where the focus is set on the strategic objective of reducing complexity, reinvention and time-wasting in the product development cycle. These are described as ‘the mechanisms through which sharing knowledge is enabled at Ford’.

Language is central to the evolution and acceptance of new ideas, and this is particularly true for the rise of KM in becoming an accepted management discipline (Anklam, 2002). Every organisation has a set of words and phrases that are unique to the organisation and anyone outside its environment would not be able to understand their meaning. This ‘corporate vocabulary’ is very difficult to penetrate and change by bringing new terms into it like ‘knowledge management’. McDermott and O’Dell (2001) report that Ford’s product development group does not talk about ‘knowledge management’ or ‘knowledge sharing’. Instead they use the term ‘complete analysis’. In a similar manner, Lotus uses ‘collaborating’ and AMS uses ‘leveraging’ as vehicles for deploying KM initiatives that are grounded on pre-existing corporate vocabulary and core cultural values.

In order to identify critical business needs at Danwood, it was first necessary to interview senior management. This helped to identify the business goals and objectives that could be achieved faster and more efficiently with the help of a KM initiative. The most important conclusion of these interviews was that process improvement was of
particular importance to Danwood, both in concept and as vocabulary. As a result, the focus was then set on finding a way to introduce KM as a means of improving business processes. Traditionally in process improvement, one or more consultants enter a company to conduct interviews and other data-collecting exercises and submit a report to senior management with recommended changes and optimisations. This method tends to be very time-consuming, expensive and potentially inaccurate because it is heavily based on how much employees will be prepared to reveal to the ‘outsider’ consultant, as well as having to rely on the consultant’s individual perception. The end result is usually an idealistic representation of the organisation’s process structure. As an alternative to this approach, process improvement at Danwood relies on the collective effort of knowledge-building teams. These teams are not specially formed for this purpose. They are existing teams within the organisation that share common characteristics and collaborate through linked business processes. The people that actually execute business processes on a daily basis are considered to be the real experts. Therefore, it is also expected that they can make much more realistic and practical suggestions for improvement through their own knowledge, experience and expertise. KM was therefore initiated at Danwood as the Process Improvement project. However, within six months, after some business-term success had been achieved, the project was renamed as Knowledge-Based Process Improvement. This was recognised as an important event because it demonstrated the evolution of the organisational culture towards a new level of KM maturity. The strategic use of ‘corporate vocabulary’ had played an important role in the initial acceptance of the new project, as well as in the evolution of the project title.

Building Strategic Relationships with the Workforce

Adapting to the corporate language is equally important when building strategic relationships with the workforce as it is when trying to secure sponsorship from senior management. Using too much technical jargon and adding hype is no longer an effective way of impressing an audience – nowadays it mostly has a negative effect. Ellis (2003) suggests that KM principles should be explained on a need-to-know basis and labelled with established business words, in order to attract more positive attention and gain faster support.

Once the support and sponsorship of senior management had been secured at Danwood, it was time to focus on achieving the ‘buy-in’ of the workforce. This task was executed as an incremental process by starting at the departmental level and spreading across the company on a step-by-step basis. When deciding whom to approach in the workforce, it was essential to identify the ‘critical mass’ of people that needed to be involved in order to enable substantial and sustainable organisational change and improvement. Within that ‘critical mass’ it was also important to recognise the key experts and activists that were the most likely to help in driving the new initiative throughout their departments and across the organisation. Social network analysis played a key role in identifying such individuals, based on their activity and interaction levels within their main organisational social networks.

McDermott and O’Dell (2001) explain that organisational culture is not homogeneous. There are always subcultures, sometimes simply different from the organisation as a whole, sometimes in opposition to it. Their advice is to recruit the support of people or divisions in the organisation that already demonstrate knowledge-sharing behaviours. Ellis (2003) agrees and also underlines the importance of building a good relationship with the people in the IT department, as they have access to useful resources that can aid the KM deployment process.

The initial reaction of Danwood’s workforce, when being initiated to the project, was a sense of disbelief. It seemed that they were accustomed to hearing about ‘enlightened’ company initiatives that promised to transform the organisation, but were never truly successful. It was essential at this point to ensure that two ‘communications’ were effectively delivered to the workforce. The first was to demonstrate that senior management was committed to the project and that all necessary actions had been authorised. As Connelly and Kelloway (2003) explain, this is a very important task because perceptions about management’s support for knowledge sharing are potentially necessary for the creation and maintenance of a positive knowledge sharing culture in an organisation. They also agree with Martiny (1998) that uncertainty about leadership commitment to knowledge sharing is a key challenge in the deployment of KM. The second ‘communication’ was that the new initiative gave the opportunity to the workforce to not only participate but also take ownership of making the project successful. This was a fundamentally different approach to being assigned a passive role in an improvement initiative and therefore had the potential to increase motivation. Communicating the wider aspects of improvement is of course important, although this has much less chances of securing staff commitment than highlighting personal benefit in day-to-day working practices. In other words, a traditional ‘cost cutting and overall efficiency’ improvement scheme, generally, didn’t seem to inspire employees into wanting to actively and continuously contribute
towards its goals. Therefore, the focus was set on communicating those personal benefits that were also expected to have a positive effect on overall performance.

Avoiding political conflict within the organisation is difficult when deploying a KM initiative. However, it is common sense to try to avoid it. Therefore, it was essential at Danwood to keep all managers of participating employees informed of project activities, in order to gain additional ‘buy-in’, resolve conflicts of personal interest and avoid negative reactions to not being informed. The need to take such action also signifies the highly hierarchical structure and ‘role-based’ culture of the organisation.

Lastly, in an attempt to keep the momentum of existing knowledge sharers and possibly attract more, it has been necessary to continuously underline the link between managing knowledge and improvement of day-to-day working practices. However, making knowledge-based contributions has been perceived as an ‘add-on’ to a person’s daily workload because of the time it consumes. As a result, knowledge sharing has often been marked as a low-priority task. To counter this problem, a new campaign has been initiated to promote the idea that sharing knowledge has to become an integral part of a person’s job description and will even be measured as a performance indicator in future employee appraisals.

Conclusions
The ability to align a KM initiative to specific business goals and demonstrate beneficial results in a short amount of time are both paramount to the initiation, deployment, evolution and, ultimately, success of KM in a commercial environment. Understanding the complexities of organisational culture and climate are a difficult and time-consuming task. Efforts should therefore be focused on assessing the essential core values that will have an impact on the design of a KM scheme. Danwood’s organisational culture has been loosely identified as a traditional ‘role-based’ culture in Handy’s typology and its organisational climate could be generally described with average values for Risk and Reward and high values for Warmth and Support. KM and organisational culture are in a continuously evolving relationship. It is recommended that a KM scheme should be initiated by adapting to the organisation’s core cultural values, in order to gain faster support. As culture evolves and matures, in terms of KM, so must the KM scheme be readapted in order to drive the culture towards the next level of KM maturity. Securing the support of senior management is essential to the endurance of a KM initiative because it seems to be the only way to ensure that the necessary investment, resources and political influence are provided. The two key methods for gaining senior management’s support for KM are a.) integrating KM with critical business needs and b.) adapting to the organisation’s ‘corporate vocabulary’. Sensitivity to language is also important when building strategic relationships with the workforce through an incremental ‘buy-in’ process. Recognising the ‘critical mass’ and key individuals or teams is also essential, in order to accelerate the growth of the KM initiative across the organisation. When interacting with the workforce it is recommended to publicise the commitment of senior management to the KM project and underline the importance of taking personal responsibility for its success, for personal and organisational benefit.

In order to avoid political conflict, it is also recommended to keep middle management informed of all KM activities where their team members’ participation may be required. Since making knowledge-based contributions is a relatively time-consuming process, it is also important to promote the idea that knowledge sharing has to become an integral part of a person’s day-to-day working practices and integrated into performance appraisal.

Future Research
The next phase of research into the cultural aspects of deploying KM at Danwood is currently underway. The focus is now set on overcoming ‘cultural barriers’ to the wider application of process-oriented KM. Some of the most important issues in this arena include employee loyalty, trust, leveraging ‘unofficial’ collaborative human networks, the new role of team-leaders as facilitators of knowledge sharing and knowledge creation, implementing effective reward systems for knowledge-based contributions and managing change as a result of KM. In addition, it has been recognised that evaluating and attempting to improve an organisation’s individual and collective learning methodology would most likely aid the deployment and acceptance of KM. In 1996 Argyris & Schon propagate the benefits of double-loop learning in modern organisations. Some of the methods used to implement this advanced learning methodology include the development of ‘self-reflection’ and ‘disagreement negotiation’ skills. Such skills are considered as essential, in order to embrace the indirect changes that KM has brought, and continues to bring, to cultural norms, social routines and working practices. Therefore, the authors intend to explore the relationship between KM and ‘double-loop learning’ as part of their future research efforts.
References


About the Authors

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Thomas Jackson is a Lecturer in Computer Science at Loughborough University. His research areas include Human-Computer Interaction, Modelling System Lifecycle Costing, Information System Analysis and Cost Effectiveness of IT Systems. Tom is a member of the International Editorial Review Board of the Journal of Electronic Commerce in Organisations and a distinguished member of the Program Committee for Information Resources Management Association Conferences. He has a BSc and a PhD from Loughborough University.

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