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Bottling Fog: conjuring up the Australian KM Standard

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Abstract

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Bottling Fog: conjuring up the Australian KM Standard.

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Abstract

This paper tells the story of the development of the Australian Standard in Knowledge Management that is due for release at the end of 2004. It does this in the context of the nature of this Standard and with the knowledge of the lengthy and sometimes difficult process that was undertaken. It is hoped that this view of the Standard and its development will encourage its adoption and acceptance by the KM community.

Introduction

To the surprise or at least reservations of many, the Australian Standard in Knowledge Management (KM) should be released by the end of 2004. It was realised from the outset that the development of a KM standard would break new ground as far as Australian Standards were concerned and there were many who said that it could or should, not be done. At one of the first meetings in 2001 of the committee chosen to create the national KM Standard, the phrase “bottling fog” was suggested as an appropriate metaphor for the process on which the select committee was embarking. Now, three years later, the remaining members of the committee agree that this metaphor remains apt for the challenging journey that now is coming to an end. This year, 2004, enough fog has been condensed into the bottle to launch the Australian KM Standard and it is the author’s belief that both the process and the final product has lessons for the Australian KM community.

This paper begins with a discussion of Standards in the context of modern business with some background to venture of the Management and Business Division of Standards Australian into the area of KM. It then describes the history of the development of the Australian KM Standard, from the perspective of someone who was a member of the committee for the duration of its existence. The paper gives an historical account of the KM Standard process together with an analysis of the evolution of the content of the Interim and the Final Standards. Included in the account is an evaluation of some of the debate and controversy that they generated among the global KM community. The paper takes the position that the resulting Standard is a worthwhile and practical contribution to the field but should be considered as a work-in-progress that will need to be regularly revisited to retain its currency and relevance.

The Desirability of and the Need for Standards

Historically the production and implementation of standards has been the key to advances in industrial production and a central feature of economic life. Bowker and Star (1996) express the traditional view that a standard is “any set of agreed-upon rules for the production of textual or material objects”. Similarly, a recent call-for-papers from the highly respected Information Systems journal MISQ defines Standardisation as “the process of creating technical standards for diffusion into the market place” where standards consist of a set of technical specifications adhered to by a producer either tacitly or as a result of formal agreement.

In a recent published report on KM standards (KM Committee 2004) it was noted that, as each age matures, the demand for standardisation increases. Techno-scientific societies are powerful precisely because they are so good at structuring and organising work. Standards

have played an important role in the evolution of ICT related fields, where traditional forms of standardising through standards development organisations (SDO) have become rife with problems because of the unique and unprecedented nature of the ICT “product”. In recent times the scope, pace and success rate of the standardisation processes has changed drastically, provide both uncertainty and new opportunities. The door is now open for different standardisation concepts and processes, as well as different forms and styles of standards.

Bowker and Star (1996) make the distinction between classifications (containers for description of events), and standards (processes for how to do things). They claim that successful standards impose classifications systems. The politics of arriving at categories and standards can often be the result of negotiation and conflict. This is particularly the case as the variety of standards increases expanding into areas of organisational management and high-end business processes such as KM.

There are some generally universal characteristics of Standards that hold true even with the current variety in areas of standardisation. Standards both constrain and enable. It is debatable whether standards are created by a systematic requirement to limit the degree of variation in a system or whether its motivation is to provide efficiency and greater understanding through which known benefits can be more widely enacted (KM Committee 2004). Bowker and Star (1996) observe that standards are often deployed in the context of making things work together eg computer protocols and often enforced by legal bodies or at least endorsed by authoritative entities. They note also that there is no natural law that says that the best standard will be agreed upon but that, once determined, standards have inertia and are difficult to change.

There are also characteristics on which standards can vary extensively. Standards can emerge through converging practice, through the dominance of one player in the market or through the work of an official SDO. Standards can sometimes be prescriptive to be enforce by laws or regulations. Others are descriptive best practice guidelines or simply a timely informed description of the current landscape in an emerging area. For some, high visibility is critical while others should be ubiquitous, underpinning interoperability with other classifications schemes and standards.

Why and how Standards Australian Entered the KM Space

Despite the common perception that standardising means the construction of regimented and rigid rules, the Australian SDO, Standards Australia, is a not-for profit organisation that has societal objectives which means that its mission is to produce standards to make a net contribution to society. To remain viable Standards Australia must sell its products, i.e. the Standards, although this attracts the criticism that these are a public good and should be made available free of charge. It is only this year that Standards Australia has become a completely separate organisation from its commercial division, now SAI Global and previously Business Excellence Australia (BEA). For most of the period throughout which the KM Standard was developed they were division of one organisation, Standards Australia International (SAI), and the committee’s task was not made any easier by the obvious tensions between the different aims of the two divisions. With its new independence, Standards Australia is more able to be true to its goal of sharing of information and experience to the benefit of industry and society as a whole.

With this in mind, it is easy to understand why the Management and Business Division of Standards has entered into area of need such as Customer Service, Risk Management and Corporate Governance. In particular Corporate Governance Standards have marked in important milestones in ethically sensitive areas such as Fraud and Corruption Control,

Organisational Codes of Conduct, Corporate Social Responsibility and Whistleblower Protection Programs.

Such standards provide important tools to help organisations manage risk and governance. According to Vinceti (2003), the advantage of these standards is that they offer principles, embedded in practice, and give users “the opportunity to adjust within a locally or widely accepted framework”. He further states that “the basic principles and standards that have been developed and accepted in the past few years have helped major stakeholders to work towards a common language which also has facilitated to a certain extent the globalisation of world business”.

Standards Australia has therefore developed a practice of identifying emerging issues, within the growing complexity and sophistication of modern business, where managers need guidance in how best to proceed in a changing environment. Standards Australia takes a variety of approaches to such issues of interest. It can put together a small team to investigate the area and produce a Handbook or aim for a higher level of consensus and transparency to create a Standard. The latter requires the establishment of a committee of experts on the issue calling for representatives from appropriate organisations, including academic institutions, professional and industry bodies and government.

Around the year 2000 the topic of knowledge management attracted the interest of the Management and Business Division of Standards Australia. KM was starting to become an important and popular issue both in the management practices of organisations and in world of academic research. However there was little agreement or understanding of what it was or where it belonged. Was it a technical or human resource issue or was it an extension of information management?

Standards Australia’s approach was to begin by setting up a team to produce a Handbook, which was most successful. This led to a subsequent decision to go ahead and produce a Standard as will be described in the following section of the paper. During the period of the development of the standard, the commercial division of SAI, BEA, produced many popular KM products, including publications, workshops, conferences and other events. Considerable intellectual property (IP) was developed in both BEA and the SDO division, which created some confusion until the complete separation of the two in late 2003. Now the output of the KM committee is in the form of IP owned by Standards Australia giving the eventual standard more authority and credibility as an independent depiction of the area. The value of this is substantial considering that, in an emerging area such as KM, expertise is rare. Much of the IP on best practice is “owned” by consultants or early adopter companies who are reluctant to divulge any knowledge of such assets from which they make their livelihood, in the case of consultants, or gain competitive advantage, in the case of companies.

Before describing the three-year development process and the content of the KM Standard it is important to take note of three points. The first of these is the amount of change that took place in the KM field and the composition of the committee during the period. Secondly there are a number of linkages that exist between the Australian KM Standard development and those in other countries, Britain in particular, and between KM and other business standards. The third point concerns the amount of criticism and controversy that, from time to time, was levelled at the project. There were many quite prominent figures in the global KM community who felt that a KM standard was not needed, was premature, was inappropriate or was even quite dangerous. Some of this quite vehement debate will also be described below.

The Historical Journey of the Australian KM Standard

As already mentioned in the year 2000, SAI recognised the importance of KM, with the emergence of pockets of understanding and growing expertise in few organisations, while at the time, increased confusion in many others. SAI began a consultative process to produce a Handbook on knowledge management with the objectives of providing clarity and adding value to the Australian KM space. The project to produce the KM Handbook began with the selection of a small team led by someone with no KM background but rather with training as a journalist. The team went out to collect experiences and stories about KM, mainly from practitioners, and had a good response from the early, enthusiastic, adopters and interest parties. They put the collected contributions together and held several workshops to get feedback and refine their findings. The model around which they structured the Handbook is shown in Figure 1.

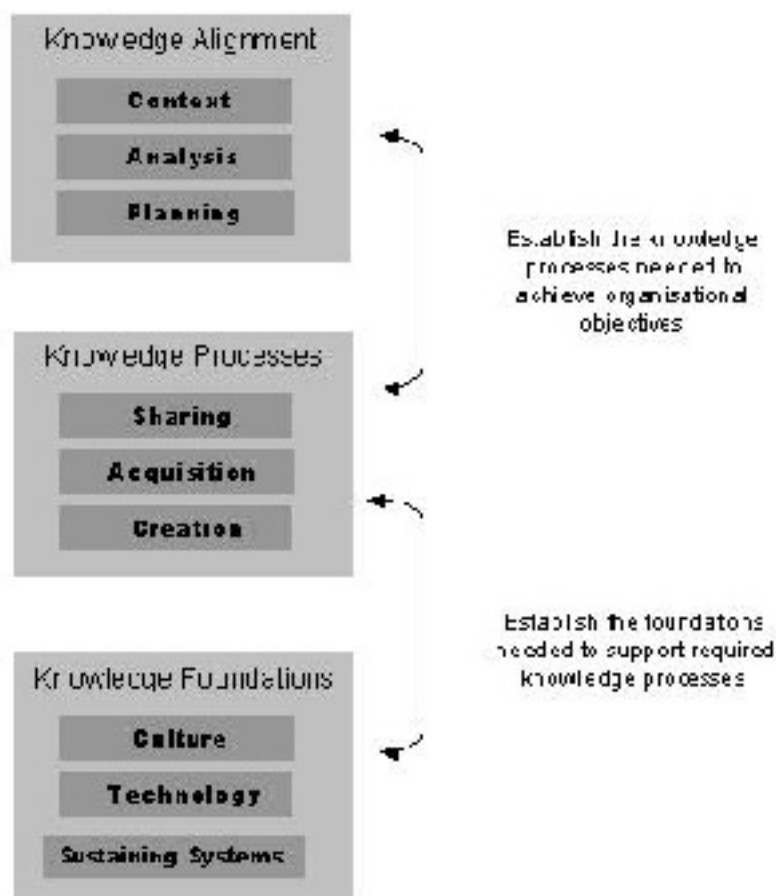


Figure 1 The KM Framework from HB275 (Standards 2001)

In 2001, SAI released HB 275 *Knowledge Management—A framework for succeeding in the knowledge era*. This Handbook was well-received and provided a framework for understanding knowledge management. However, there remained a need for a far higher level of consensus and transparency than a handbook could provide. SAI believed that a greater contribution could be made using a document with a higher level of credibility and so in 2001 established a committee to develop a standard for KM. This followed the common process of SAI where relevant organisations were approached to nominate a representative

who would attend meetings and undertake other tasks related to the production of the Standard. This is similar to the approach used by some other national Standards bodies in particular the British Standards Institute (BSI), which also has a KM committee.

The SAI committee consisted of representation from the following diverse set of organisations,

- Australian Chamber of Commerce and Industry
- Australian Human Resources Institute
- Australian Industry Group
- Australian Information Industry Association
- Australian Library and Information Association
- Australian Society of Archivists
- Computer Human Interaction Special Interest Group
- CSIRO
- Institute for Information Management
- Law Council of Australia
- Macquarie University
- National Office for the Information Economy
- Quality Society of Australasia
- University of Technology, Sydney

The intent was that the committee should reflect the diversity and multidisciplinary nature of the field of KM. Their view was that KM is a multidisciplinary field that had recently come to prominence and was rapidly evolving. Creating a national standard however proved to be a particularly challenging and demanding process in a controversial area such KM. However the committee persevered and started on the first objective, namely to produce an Interim Standard that could be used to get feedback on their approach. Considerable interchange between SAI committee and the BSI equivalent took place over the period of the Standard's development. Although BSI have not yet created a full Standard, they have produced a number of publications that have complemented the work of SAI.

The committee chosen to establish the Standard followed an interesting path. Originally they intended that the standard, as an extension of the framework in the Standard's KM Handbook KM (HB275-2000), would be a definitive depiction of the KM area. Instead the Interim Standard (AS5037[Int]) is built around a specific model for understanding, developing and implementing knowledge management.

The Interim Standard recognises the broad scope of KM with its strong link to culture from a workplace point of view and from a wider societal context. It promotes the view that managing knowledge is critical to success not only in workplace settings but also for many community groupings and for individual growth and learning. The objectives of the Interim Standard were to:

1. describe the key concepts of knowledge management,
2. provide a model for exploring how different aspects of knowledge management can be used to help an organisation achieve its strategy; and
3. reflect emerging practices in knowledge management"

Regular meetings of the committee were held to the end of 2001 and into 2002. The actual attendance at each meeting varied considerably due to absentees and the many changes in the organisational representatives. There was much discussion and collections of work but also many changes of direction and divergences of opinion. The emerging draft reflected this confusion. In mid-2002 a small group of those who had attended regularly met together and produced a revision of the draft that started to show some coherence and had the support of

the whole committee. The model depicted in Figure 2 provided the framework for this draft and, although the artwork had its limitations, this model guided the thinking of the committee from then on.

The explanation for this model is given in the Interim Standard as follows:

“The organisation’s capability and culture form the core of the model, given direction by the overall business strategy. An organisation’s strategy is usually articulated as goals or drivers (that which drives the organisation). Knowledge management must be aligned with organisational strategy, serve one or more drivers and contribute to the realisation of the organisation’s outcomes.”

This KM model is based on the principle that effective and relevant knowledge management must be aligned with the overall organisational strategy. The model incorporates five components:

- Strategy
- Organisational Capability and Culture
- Drivers
- Elements
- Enablers

Effective knowledge management must balance the four elements – people, process, technology and content – and again fit with organisational capability and culture. Therefore, the balance of the elements will depend on the particular organisation or group, which is the focus of a particular initiative. Finally, knowledge management is implemented through the selection of particular enablers. Enablers range from recognised disciplines that complement knowledge management, such as records management or quality management, to specific practices such as mentoring or tools such as electronic collaboration software.”

The standard also suggests that the following are three key phases in developing and implementing knowledge management:

- Understanding the context for knowledge management
- Conducting a knowledge gap analysis
- Facilitating knowledge in action

However it is recognised that the phases do not form a linear process and that, while the phases do build on each other, they can be used flexibly or iteratively. The order and depth of each phase will depend on the nature and aims of the particular knowledge management initiative.



Figure 2 The Australian Interim Standard Model (AS 5037 Int)

The interim standard AS 5037 (int) was released in February 2003 as a “work in progress”, directed principally at managers and KM practitioners and was followed immediately by a process to collect feedback from the public on the document. The willingness of those in the KM community to provide their ideas and opinions has been encouraging and these are now being incorporated into the final standard, to be released late in 2004.

The major changes in the revised standard are:

- an emphasis on how to assess whether an organisation is ready to adopt knowledge management concepts and methodologies;
- advice on how to implement the Standard within the context of an organisation's internal and external environment; and
- an explanation of the theoretical underpinnings of the Standard.

The final version of the Standard aims to assist organisations to understand the environment best suited for enabling their knowledge management activities. It offers a more scalable and flexible framework for planning, implementing and assessing knowledge management strategies that respond to an organisation's state of readiness and topography. Considerable time was spent by the committee in creating a framework that an organisation could use to determine both its current KM position and to which position it may want to move in a KM initiative. The framework, a draft version of which is shown in Figure 3, intends to indicate that an organisation may be at different positions on different lines and what may be best will inevitably be different for each organisation.

Elements of KM	STANDALONE	CONNECTED	NETWORKED	ADAPTIVE
PEOPLE	Individualised work functions Autonomous decision making Rigid hierarchical structures	People work in groups or teams Cross functional teams work together Sharing information is part of normal work activity Trust is developed through both formal & informal Work interactions and activities Networking allows the development of shared understandings		Embrace change as a normal state High situational awareness High levels of trust
PROCESS	No standard processing Knowledge activities not rewarded High levels of duplication Mistakes are hidden	Knowledge as an object Processes are documented & standardised Duplication is identified and reduced	Continuous improvement/ TQM Senior Management embrace KM	Knowledge as a process View mistakes as learning opportunities
TECHNOLOGY	Non-existent Information held on individual computers Lack of standards for interoperability Independent legacy systems	ERP Email Limited use of Intranets Shared drives	e-business Collaborative tools, groupware Interoperability standards for Hardware and software Enterprise portals	Sophisticated Extranets Sophisticated intelligent Search engines Self-adaptive technology evaluates its own behaviour and changes
CONTENT	Messy chaotic & unstructured Ad hoc & in silos Independent pools of information held locally	Document management systems Decentralised & trained authors for Intranet Ad hoc codification of knowledge Some content available of Intranet		Access to information is ubiquitous, self-defined and infinitely re-configurable Integrated sharing of content with suppliers and customers

Figure 3 A draft version of the KM Readiness Framework for the Final Standard

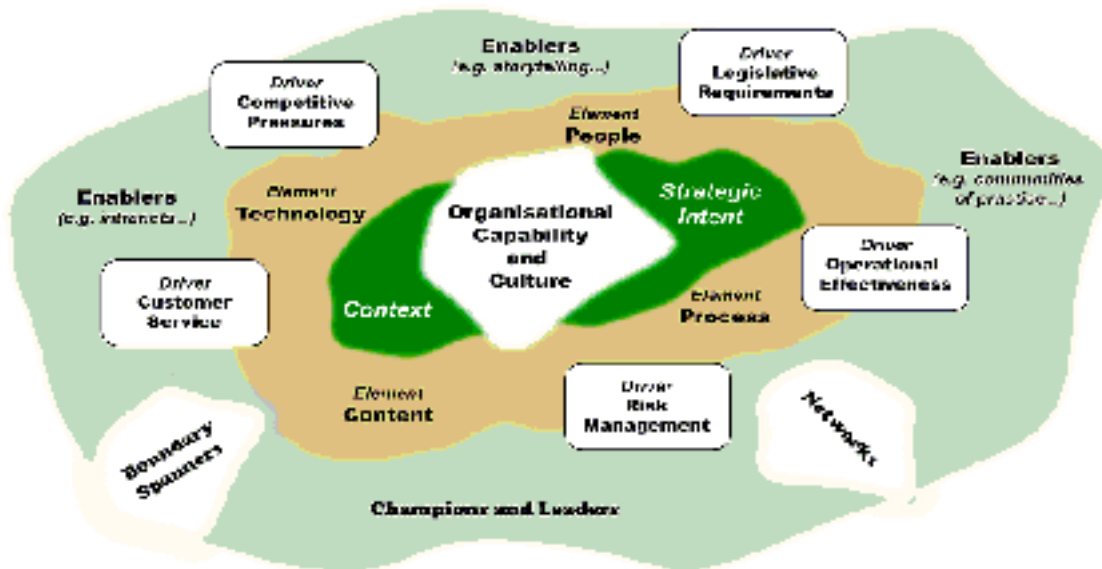


Figure 4 The Australian Final Standard Model (AS 5037)

The model used in the Interim Standard (Figure 2) while receiving some disparaging comments, was found to be useful in pulling the diverse aspects of KM together, particularly when seeking feedback from managers new to KM. In the final Standard it was felt necessary to retain such a diagram but to make it less formal in appearance. The design of a new diagram was also influenced by the pragmatic fact that the use of colour in the final Standard was prohibited. Figure 4 shows a close to final version of the new model to integrate the elements, enablers and other KM factors that appear in the Final Standard.

The Controversy

Through the period of the KM Standard development it was not uncommon to encounter people whose reaction to hearing of the endeavour was to wonder how and why anyone would try to produce a standard for KM. This opinion was usually based on a narrow view of standards as discussed above. They usually came around once it was explained that AS 5037 is not intended a prescriptive standard. The recently produced Australian Risk Management (AS4350) and Governance (AS8000-4) Standards also fall into this mould. However the concepts of risk and governance are generally better understood than KM. The committee portrayed the KM Standard as describing the enabling of knowledge in an enterprise and that this was very much a context related issue and hence there was not one size that fitted all. Knowledge management is in a constant state of flux as it matures and this Standard respects and reflects this fluidity by being a living document. The Standard provides an informative framework that will help facilitate understanding of what knowledge management is and how it can help develop organisational knowledge literacy. As a result the committee decided to bring out a document based on a descriptive model, which allows users to create their own pathway in terms of approach.

In late October 2003 through to early 2004 a much more vigorous debate on the appropriateness of developing a KM standard took place on the ActKM Yahoo online discussion forum. Although this group originated in Canberra, it now has hundreds of members across the globe, among them many prominent authorities in the field. It was not unusual for heated debates to take place on this forum and indeed sometimes the arguments get so intense among a few participants that other members ask them to stop.

In the case of the extended KM Standards debate, most thought the Standard unnecessary or meaningless but a few participants saw the Standards as potentially being harmful. There were fears that the Standard would make KM too rigid, that it would reduce KM to the lowest common denominator, that it would exclude legitimate approaches to KM and that no matter what definitions were adopted there would be those who would disagree with them. As the debate became more vociferous some of the committee members posted defences of the Australian KM process which seemed to dispel some concerns of forced control, compliance and inflexibility. There were some justifiable concerns that the Standard might be compromised by the commercial activities of BEA but the separation of BEA from Standards Australia helped to alleviate those concerns. However, with most KM controversies, there is rarely complete agreement and this is to be expected in such a complex, multi-disciplinary area.

The Outcomes

In order to examine the conceptual content of the controversy and of the two versions of the Standard the content analysis tool Leximancer was used to extract concepts from the text in the ActKM forum postings and the two Standard documents. It should be noted that at this stage there is only a close to complete draft of the final Standard. In each case Leximancer

was used to automatically extract concepts. Among these a few obvious synonyms were merged and a few obviously spurious concepts removed, for example the email header words such as “sender”. The resulting weighted concepts are listed in the Appendix with those unique to one set highlighted. From a first high-level analysis two issues are apparent.

Firstly, it is interesting to note that the concept of the committee came very low on the forum’s list of concept probably indicating that the attack on the standard was not directed at the committee itself or indeed at the particular efforts of the committee but rather on the abstract concept of a KM standard. Other than the expected concepts of standard and debate, those that were prominent in the Forum list, and not on both of the others, were practice, time, values, approach, issues, create, world, model and business; all quite legitimate KM concepts. This would suggest that the participants were well informed about KM and it was only the features of the Standard were in question.

Secondly it is reassuring how similar are the main elements in the concept lists for both the Interim and Final Standards. On first glance they give the appearance of being quite different. This consistency hopefully indicates that there are core elements of KM that should be in a Standard and the committee has captured these. It may be informative to look at differences in the two lists as an indicator of the changing emphasis of KM over the period. Concept in the Interim Standard list not prominent in the Final Standard are sharing, learning, support and initiative while those in the Final Standard more prominent than in the Interim are strategy, people, change, business, context and understanding. This may indicate some maturing of the field.

In conclusion, it is suggested that the development of the Australian KM Standard has broken new ground among Australian and International Business Standards, in process, in style and in content. The paper aimed to describe this new ground in order to inform others involved in such a process and to help those who read the Standard to better understand how it came about and what it attempts to be. With the explanation provided here it is hoped that readers will agree that the KM Standard is a worthwhile and practical contribution to the work of managers and researchers alike.

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Appendix

Forum Debate on KM Standard

Concept	Absolute Count	Relative Count
<u>standards</u>	200	100%
<u>knowledge</u>	125	62.5%
<u>management</u>	83	41.5%
<u>people</u>	48	24%
<u>organisation</u>	48	24%
<u>practice</u>	44	22%
<u>time</u>	33	16.5%
<u>debate</u>	32	16%
<u>process</u>	30	15%
<u>values</u>	30	15%
<u>approach</u>	28	14%
<u>issues</u>	28	14%
<u>create</u>	27	13.5%
<u>world</u>	26	13%
<u>model</u>	25	12.5%
<u>business</u>	25	12.5%
<u>human</u>	24	12%
<u>interested</u>	22	11%
<u>systems</u>	21	10.5%
<u>committee</u>	21	10.5%
<u>ways</u>	12	6%

Interim Standard

Concept	Absolute Count	Relative Count
<u>knowledge</u>	352	100%
<u>management</u>	306	86.9%
<u>organization</u>	210	59.6%
<u>process</u>	56	15.9%
<u>information</u>	47	13.3%
<u>sharing</u>	37	10.5%
<u>business</u>	32	9%
<u>culture</u>	32	9%
<u>activities</u>	28	7.9%
<u>systems</u>	25	7.1%
<u>learning</u>	24	6.8%
<u>support</u>	23	6.5%
<u>environment</u>	23	6.5%
<u>work</u>	22	6.2%
<u>initiative</u>	21	5.9%
<u>performance</u>	20	5.6%
<u>group</u>	20	5.6%
<u>time</u>	19	5.3%
<u>techniques</u>	18	5.1%
<u>external</u>	17	4.8%
<u>strategy</u>	16	4.5%
<u>data</u>	14	3.9%
<u>social</u>	14	3.9%

Final Standard

Concept	Absolute Count	Relative Count
<u>knowledge</u>	584	100%
<u>management</u>	438	75%
<u>organisation</u>	395	67.6%
<u>information</u>	82	14%
<u>process</u>	79	13.5%
<u>strategy</u>	68	11.6%
<u>people</u>	57	9.7%
<u>change</u>	55	9.4%
<u>business</u>	51	8.7%
<u>work</u>	51	8.7%
<u>culture</u>	48	8.2%
<u>context</u>	46	7.8%
<u>environment</u>	43	7.3%
<u>activities</u>	42	7.1%
<u>sharing</u>	42	7.1%
<u>understanding</u>	40	6.8%
<u>social</u>	33	5.6%
<u>systems</u>	31	5.3%
<u>performance</u>	31	5.3%
<u>tools</u>	31	5.3%
<u>practice</u>	30	5.1%
<u>techniques</u>	29	4.9%
<u>intervention</u>	29	4.9%
<u>development</u>	29	4.9%
<u>implementation</u>	28	4.7%
<u>networks</u>	27	4.6%