The role of knowledge management in eBusiness and customer relationship management

APPENDIX A: DMAP QUESTIONNAIRE

Questionnaire on the role of knowledge management in eBusiness and customer relationship management

Please fill in the questionnaire by working down columns C and E. Try to fill in all fields, but if you simply do not know, leave text fields blank (column C) and put a "9" in assessment fields (column E).

The questionnaire contains eleven sections. Please complete all sections. For your convenience these sections are colour coded.

Section	
Introductory notes	
Virtual communities and knowledge sharing	
Knowledge management as integration and change agent	
Knowledge management efficiency improvements	
Increased organisation and knowledge base complexity	
Pooling of expertise	
Knowledge management in the learning environment	
Knowledge attrition	
Organisational agility	
Organisational strategy definition	
Adoption of the eBusiness model	
Open questions	
Respondent Details	

The examples below show how the questions have to be answered. Answer each question from your perspective of the performance of your business unit.

Do you know how to answer this questionnaire?	**3** Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

In the space provided below, list the potentially most important COMMENT you have on the business performance of @company. Then rate @company's current performance for this issue in the block to the right of your answer. Typically do not use more than ten words in the text block.

@company is the Number 1 e-business group in SA in the financial sector	4	Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

This is an anonymous questionnaire. Your comments will not be traced back to you. Be honest in your feedback.

If you have any queries related to the filling in of this questionnaire, please call Marina du Plessis on 082 452 0479

VIRTUAL COMMUNITIES AND KNOWLEDGE SHARING refer to the practice of creating, sharing, harvesting, and leveraging of knowledge across divisional, organisational and geographical boundaries, mostly using electronic means

	Question		Scale
Question # 1	How important is it for your organization to use extranets to share knowledge with customers/suppliers?		Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".
Question # 2	To what extent does your organization retain knowledge shared in virtual communities / collaborative forums?		Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".
Question # 3	How important is it for your organization for the knowledge management function to interface with / have any responsibility for centers of excellence?		Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".
Question # 4	To what extent does knowledge management provide virtual communities / knowledge sharing platforms and/or tools?		Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".
Question # 5	To what extent is the knowledge management function in your organization responsible for structuring of content on your company's website?		Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".
Question # 6	To what extent does collaboration by means of virtual communities prevent duplication of work in your organisation?		Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

KNOWLEDGE MANAGEMENT AS INTEGRATION AND CHANGE AGENT involves using knowledge management to effect intra- or inter-organisational integration through provision and use of knowledge, and to enable change management through provision and use of knowledge relating to change

To what extent does knowledge management, through the provision of knowledge, facilitate an easier transition when organisational changes are made, e.g. restructuring?	Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 7

How important is it to facilitate integration between eBusiness partners through knowledge management practices?	Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 8

How important is it to facilitate transparency in the organisation through the use of knowledge management?	Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 9

KNOWLEDGE MANAGEMENT EFFICIENCY IMPROVEMENTS refer to easier access and improved navigability of knowledge as well as the possibility of reuse of knowledge through standards provided for the creation, sharing, harvesting and leveraging of knowledge

How would you rate the importance of providing 24-hour access to knowledge?	Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 10

How would you rate the importance of knowledge management in preventing duplication of work?	Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 11

To what extent does knowledge management enable reuse of knowledge in various contexts?	Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 12

To what extent does knowledge management and its related activities, e.g. content structuring, minimise time that result from ineffective searches for knowledge?	Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 13

To what extent does availability of knowledge lead to better customer relationships?	Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 14

Question # 15

How important is knowledge management in contributing to better service delivery?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

INCREASED ORGANISATIONAL AND KNOWLEDGE BASE COMPLEXITY refers to organsations using knowledge management to overcome organisational and knowledge base complexity through provision of knowledge across intra- and inter-organisational boundaries and through the embedding of knowledge in day-to-day work activities

Question # 16

How important is it for your organisation to identify tacit knowledge sources?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 17

How important is knowledge management in enabling cross-divisional flow of knowledge?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 18

To what extent does your organisation embed knowledge management in staff's day-to-day activities?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

POOLING OF EXPERTISE refers to organisations providing one point of entry to their knowledge bases to ensure efficiency in the organisation and retrieval of knowledge

Question # 19

To what extent does your organisation provide a single point of entry to the knowledge base?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 20

To what extent does knowledge management provide an electronic interface with business partners?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 21

How important is it for your organisation to have one view of the customer?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 22

How important is it for your organisation to facilitate easier access to knowledge?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 23

To what extent does your organisation provide useful structure to the knowledge base?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

KNOWLEDGE MANAGEMENT IN THE LEARNING ENVIRONMENT refers to the provision of access to knowledge that can enhance staff knowledge and skills, as well as knowledge that can stimulate innovation

Question # 24

To what extent does knowledge management currently lead to increased innovation?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 25

How would you rate the importance of knowledge management as critical factor for accelerated learning?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 26

To what extent does knowledge management currently increase employee productivity?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

KNOWLEDGE ATTRITION refers to the loss of knowledge when employees leave the organisation

Question # 27

To what extent is tacit knowledge converted to explicit knowledge in your organisation?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Knowledge management increases **ORGANISATIONAL AGILITY** through availibility and accessibility of knowledge that leads to quicker and more efficient decision-making

Question # 28

To what extent does knowledge management increase the efficiency of decision-making in your organisation?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 29

How important is it for your organisation to provide the right knowledge timeously to speedily adapt to changes in the marketplace?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 30

How important is knowledge management in your organisation in reducing time to market of products and services?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Organisations use knowledge strategic to the business to influence the **ORGANISATIONAL STRATEGIC DIRECTION** of the business

Question # 31

To what extent does the availability of knowledge increase your organisation's agility?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 32

How important is knowledge management in providing the organisation with knowledge strategic to the business, e.g. knowledge on products and services, markets, competitors, customers, employee skills, processes and procedures and the regulatory environment?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 33

How important is knowledge management in assisting in identifying new business opportunities?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 34

To what extent is knowledge seen as a corporate asset?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Knowledge management can assist organisations in quicker **ADOPTION OF THE eBUSINESS MODEL** through the provision of knowledge along the eBusiness business process value chain and by providing the capacity to handle larger volumes of knowledge

Question # 35

How important is knowledge management, through the provision of knowledge, in allowing staff to adjust to their changing roles in the eBusiness environment?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 36

To what extent does knowledge management facilitate the implementation of the eBusiness model by facilitating knowledge flow *across* organisational and geographical boundaries?

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 37	To what extent does knowledge management facilitate the implementation of the eBusiness model by facilitating knowledge flow *within* organisational boundaries?	Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".
Question # 38	How would you rate the importance of knowledge management in supporting the different knowledge flows due to changed business processes in the eBusiness model versus the traditional business model?	Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".
Question # 39	How would you rate the importance of knowledge management in helping the organisation to cope with more knowledge due to explosion of richness and reach of knowledge in the eBusiness environment?	Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".
Question # 40	**In the two spaces provided below, describe the two most critical requirements for knowledge flow across divisional, organisational and geographical boundaries**. Then rate your unit's current performance for these two issues in the blocks to the right of your two answers. Typically do not use more than ten words in each text block.	
		Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".
		Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".
Question # 41	**In the two spaces provided below, describe the two most prevalent performance measurements relating to knowledge management in your organisation.** Then rate your unit's current performance for these two issues in the blocks to the right of your two answers. Typically do not use more than ten words in each text block.	
		Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".
		Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 42

In the two spaces provided below, describe the two most essential leadership elements in knowledge management in your organisation. Then rate your unit's current performance for these two issues in the blocks to the right of your two answers. Typically do not use more than ten words in each text block.

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 43

In the two spaces provided below, describe the role of communication in knowledge management. Then rate your unit's current performance for these two issues in the blocks to the right of your two answers. Typically do not use more than ten words in each text block.

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 44

In the two spaces provided below, describe the two most critical operational efficiencies effected by knowledge management in your organisation. Then rate your unit's current performance for these two issues in the blocks to the right of your two answers. Typically do not use more than ten words in each text block.

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Question # 45

In the two spaces provided below, describe the two most strategic operational efficiencies effected by knowledge management in your organisation. Then rate your unit's current performance for these two issues in the blocks to the right of your two answers. Typically do not use more than ten words in each text block.

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

Business unit performance on scale between 0 and 5 (where "0" is poor, "5" is excellent and numbers in between denote performance between these two extremes). If you really do not know the answer, put a "9".

RESPONDENT DETAILS

ROLE

| Knowledge Management Professional | | Put a "1" in the relevant block or |
| Other | | blocks, to indicate your situation. |

YEARS IN ORGANISATION

0 to 1 yrs		
1 to 2 yrs		
2 to 5 yrs		Put a "1" in the relevant block.
5 to 10 yrs		
10 to 20 yrs		
20 yrs +		

YEARS IN CURRENT POSITION

0 to 1 yrs		
1 to 2 yrs		
2 to 5 yrs		Put a "1" in the relevant block.
5 to 10 yrs		
10 to 20 yrs		
20 yrs +		

YEARS SINCE LAST ORGANISATIONAL RESTRUCTURING

0 to 1 yrs		
1 to 2 yrs		Put a "1" in the relevant block.
2 to 5 yrs		
5 to 10 yrs		

If you have completed all questions and have reached this point, you have successfully completed the questionnaire. Now "SAVE" the document under the same name and send it back to **Marina.duplessis@bentleywest.com** for analysis. **REMEMBER,** this is an anonymous questionnaire and confidentiality is guaranteed.

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APPENDIX B: QUESTIONNAIRE RESULTS

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B. KNOWLEDGE MANAGEMENT QUESTIONNAIRE: DMAP

B.1. Aim of the questionnaire administered in this study

The aim of the questionnaire is to test the validity of the hypothesis of the value proposition of knowledge management in eBusiness and customer relationship management, as set out in Chapter 8 (with specific focus on sections 8.4. and 8.5) within the South African context.

B.2. Design and administering of the questionnaire

The questionnaire for this study was carefully designed to ensure that it covered all the elements of the proposed hypothesis as stated in Chapter 8. The questionnaire consists of ten major dimensions, namely:

- Virtual communities and knowledge sharing.
- Knowledge management as integration and change agent.
- Knowledge management efficiency improvements.
- Increased organisational and knowledge base complexity.
- Pooling of expertise.
- Knowledge management in the learning environment.
- Knowledge attrition.
- Organisational agility.
- Organisational strategy definition.
- Adoption of the eBusiness model.

These dimensions were tested by 39 closed questions in the DMAP. Prior to administering the questionnaire, specific issues pertaining to the dimensions were identified to test the hypothesis later in the analysis phase and the questions in the questionnaire were mapped to each of the issues. The issues per se were not used in the questionnaire, but have been utilised during the analysis and conclusion formulation. The analysis of the closed question data in this chapter comprises of six elements:

- Average profile of all respondents
- Profile of all respondents with reference to all questions
- Comparison of respondents with reference to closed questions with significant differences
- Comparison of respondents with reference to average of the ten strategic dimensions
- Comparison of industries with reference to average of each of the ten strategic dimensions
- Comparison of knowledge workers and other staff

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There were also six open questions, testing the rest of the themes not covered at all or covered inadequately by the ten strategic themes above. The open questions tested the following strategic themes:

- Critical requirements for the flow of knowledge across divisional, organisational and geographical boundaries.
- Knowledge management performance measurements.
- Leadership elements relating to knowledge management.
- Role of communication in knowledge management.
- Operational efficiencies achieved through knowledge management.
- Strategic efficiencies achieved through knowledge management.

Prior to administering the questionnaire, specific issues pertaining to the strategic themes were identified to test the hypothesis later in the analysis phase and the questions in the questionnaire were mapped to each of the issues. The issues per se were not used in the questionnaire, but have been utilised in the following chapter during the analysis and conclusion formulation.

Respondent details were provided at the end of each questionnaire enabling a view of the respondent and his / her organisation, their role within the organisation relating to knowledge management, the time spent in their current positions and in the organisation, and the years since they were part of a restructuring within the particular organisation.

B.3. Data analysis and interpretation

B.3.1. Summary

This questionnaire was administered in January and February 2002 to 40 individuals in companies spanning the following industries:

- Information Technology (3): small, medium and large organisations.
- Professional Services (2): medium and large international organisations.
- Financial Services (2): large local organisations, includes banking and insurance.
- Telecommunications (1): large organisation.
- Manufacturing (1): large organisation.
- Research (1): small organisation.

A response rate of 55% of individuals targeted was achieved, with responses covering all the industries as stated above, except the Research industry, where no responses were received.

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The survey measured virtual communities and knowledge sharing; knowledge management as integration and change agent; knowledge management efficiency improvements; increased organisational and knowledge base complexity; pooling of expertise; knowledge management in the learning environment; knowledge attrition; organisational agility; organisational strategy definition; adoption of the eBusiness model.

The specific results pertaining to the selection as articulated above, are summarised below in terms of these strategic dimensions, of which the first ten are based on closed-question responses and the eleventh is made up entirely of open questions.

B.3.2. Framework for analysis

The interpretation of the DMAP questionnaire is based on the statistical data and principles of analysis as indicated by Swart (2001, p.12) – see Chapter 9, Figure 33.

B.4. Questionnaire results

The results of the questionnaire can be viewed from different perspectives and many charts can be drawn. The researcher has selected the perspectives and charts most appropriate to the study. The results are depicted in separate sections below.

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B.4.1. Results: closed questions

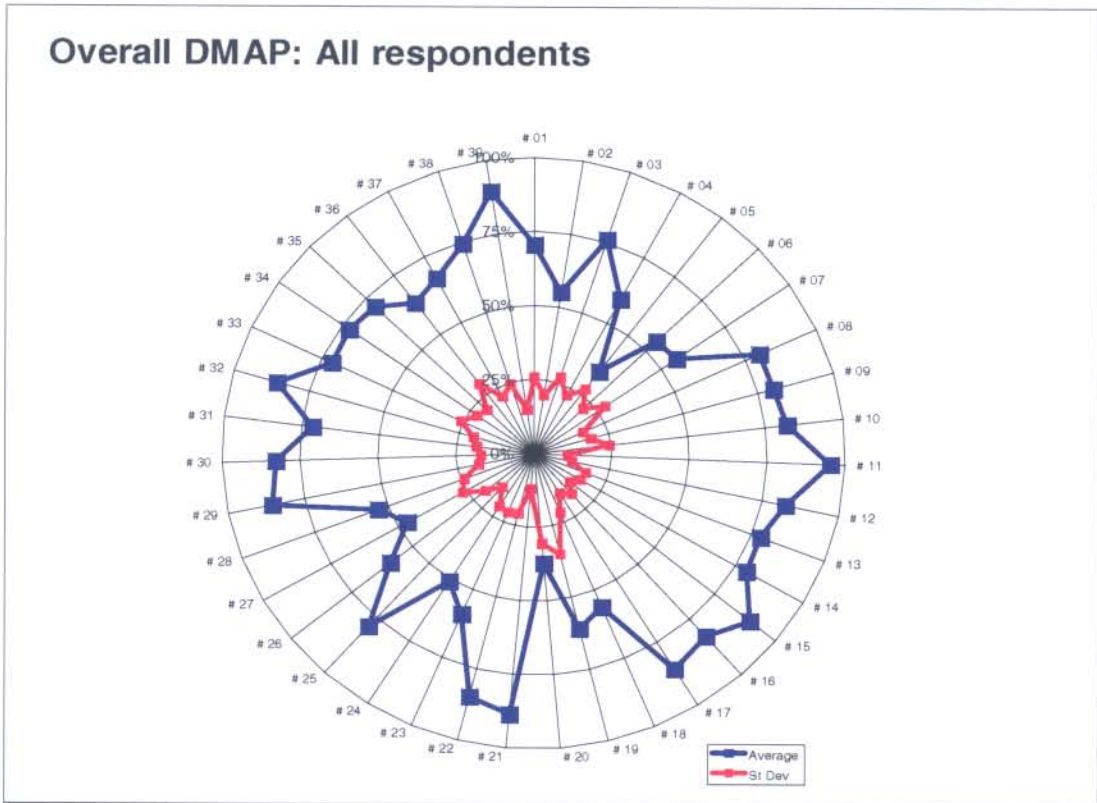### B.4.1.1. Average profile of all respondents

Figure B1. Overall DMAP: all respondents

The diagram depicts an average profile of importance and performance relating to knowledge management in the respondents' organisations with an overall agreement on most issues (approximately 75% of issues were agreed on). Some questions scored a high level of satisfaction, whilst others scored a low level of satisfaction from respondents.

The following strengths (> 65%) have been identified in this diagram:

- It is important for the respondent organisations to use extranets to share knowledge with customers / suppliers, although there is not a high level of agreement, indicating the level of importance differs for the various respondents (Q1).
- It is very important for the respondent organisations that the knowledge management function interfaces with / has responsibility for centres of excellence, although there is not a high level of agreement, indicating that the level of importance differs for the various respondents (Q3).

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- There is a high level of agreement amongst respondents on the importance for the respondent organisations to facilitate integration between eBusiness partners through knowledge management practices (Q8).
- There is a high level of agreement amongst respondents on the importance for the respondent organisations to facilitate transparency in the organisation through the use of knowledge management (Q9).
- There is some agreement amongst respondents that 24-hour access to knowledge is important for the respondent organisations (Q10).
- An extremely high level of consensus exists amongst respondents that knowledge management is important with reference to the prevention of duplication of work (Q11).
- An extremely high level of agreement exists amongst respondents on the current performance relating to the reuse of knowledge in various contexts (Q12).
- A high level of consensus exists amongst respondents on the performance of knowledge management as factor that minimises time spent looking for knowledge (Q13).
- There is a high level of agreement amongst respondents that the availability of knowledge in the respondent organisations currently leads to better customer relationships (Q14).
- There is a high level of agreement amongst respondents that knowledge management in the respondent organisations currently lead to better service delivery (Q15).
- A high level of agreement exists that it is important for the respondent organisations to identify tacit knowledge sources (Q16).
- A high level of consensus exists amongst respondents on the importance of knowledge management in enabling cross-divisional flow of knowledge (Q17).
- An extremely high level of agreement exists amongst respondents on the importance of having one view of the customer (Q21).
- Agreement exists amongst respondents that it is important for respondent organisations to facilitate easier access to knowledge (Q22).
- A high level of consensus exists on the importance of knowledge management as critical factor for accelerated learning (Q25).
- There is a high level of agreement amongst respondents on the importance of providing the right knowledge timeously to speedily adapt to changes in the marketplace (Q29).
- A high level of agreement exists that knowledge management is important in reducing time to market of products and services (Q30).
- A high level of consensus exists on the importance of knowledge management in providing the respondent organisations with knowledge strategic to the business (Q32).
- Some agreement exists on the importance of knowledge management in supporting the different knowledge flows due to changed business processes in the eBusiness model versus the traditional business model (Q38).

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- A high level of agreement exists amongst respondents on the importance of knowledge management in assisting the respondent organisations to cope with more knowledge due to an explosion in richness and reach of knowledge in the eBusiness environment (Q39).

The following weaknesses (<60%) have been identified in this diagram:

- A high level of agreement exists amongst respondents that the respondent organisations do not retain knowledge shared in virtual communities / collaborative forums (Q2).
- There is agreement that respondents are not entirely satisfied with reference to the extent to which the respondent organisations' knowledge management function provides virtual communities / knowledge sharing platforms and / or tools (Q4).
- Knowledge management functions in the respondent organisations are not seen as responsible for the structuring of the companies' websites. There is, however, some disagreement amongst respondents on the degree of the functions' involvement (Q5).
- A high level of agreement exists amongst respondents that collaboration, by means of virtual communities, does not adequately prevent duplication of work in the respondent organisations (Q6).
- Knowledge management does not adequately facilitate an easier transition when organisational changes are made through the provision of knowledge. There is, however, some disagreement amongst respondents on this issue (Q7).
- Agreement exists that the respondent organisations do not embed knowledge management in day-to-day activities of staff (Q18).
- Respondents are not entirely satisfied with reference to the provision of one point of entry to the knowledge base in each of the respondent organisations. There is a relatively high disagreement between respondents on this issue, indicating that some organisations may be performing satisfactory, whilst others are not (Q19).
- A high level of agreement exists amongst respondents that their adequate structure to the knowledge bases of the respondent organisations are not useful (Q23).
- A high level of agreement exists that knowledge management does not lead to innovation to a great extent (Q24).
- Not all respondents are entirely satisfied with the extent to which knowledge management increases employee productivity (Q26).
- Severe problems exist in translating tacit knowledge into explicit knowledge in the average profile of respondents (Q27).
- Not all respondents are entirely satisfied with the extent to which knowledge management increases the efficiency in decision-making in their respective organisations (Q28).

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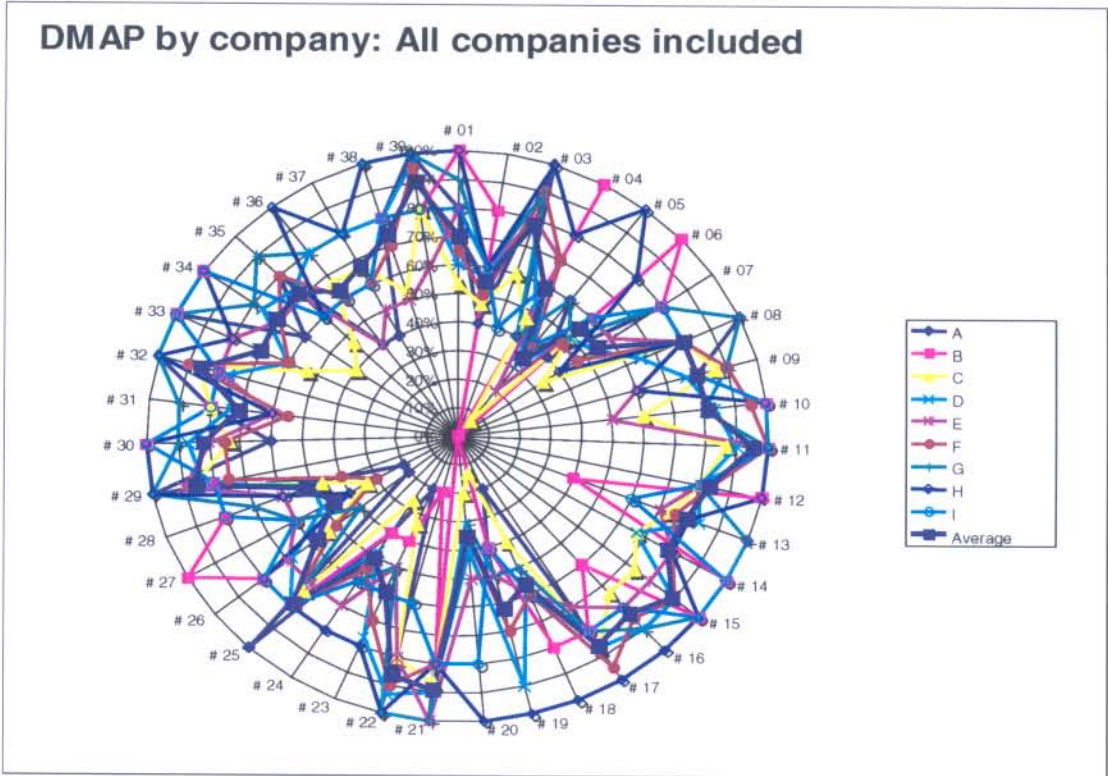## B.4.1.2. Profile of respondents with reference to all questions

Figure B2. DMAP by company: all companies included

All companies' results per question in the DMAP have been included in the diagram above. For the purpose of the analysis of this questionnaire, only the profiles of the companies detailed in the diagram below will be analysed, as more than one response were received from these companies, rendering the sample more representative.

It is, however, interesting to note in the diagram above, that Organisation B, which is a small organisation compared to all of the other respondents, have very different strengths and weaknesses relating to knowledge management. The differentiation between small and large organisations is, however, not the aim of this study and this will not be analysed in detail, as the sample of small organisations is not representative.

Figure B3. DMAP by company: companies with only one respondent excluded

Analysis: Respondent Organisation C

Respondent organisation C is a medium sized IT organisation. This organisation has a profile well below average with reference to knowledge management performance and importance. This warrants serious management attention, as the IT industry is one of the industries widely considered to be knowledge based, and generally has a services component, which is based upon knowledge, skills and competence.

The following strengths (score > 65%) in Respondent Organisation C have been identified in this diagram:

- Respondent Organisation C deems knowledge management practices as critical to facilitate integration between eBusiness partners (Q8).
- Knowledge management is seen as an important element in facilitating transparency in the organisation (Q9).
- Knowledge management is seen as important in preventing duplication of work (Q11).
- The current performance of knowledge management in enabling the reuse of knowledge in various contexts is high (Q12).
- The current performance of knowledge management in minimising time spent searching for knowledge is high (Q13).

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- Currently availability of knowledge has a valuable role in improving customer relationships (Q14).
- Knowledge management is deemed as an important contributing factor in improving service delivery (Q15).
- Respondent Organisation C deems it important to identify tacit knowledge sources (Q17)
- Knowledge management is perceived as important in enabling cross-divisional knowledge flow (Q17).
- It is highly important for Respondent Organisation C to have one view of the customer (Q21).
- Respondent Organisation C perceives the provision of easier access to knowledge as very important (Q22).
- Knowledge management is seen as a highly critical factor for accelerated learning in Respondent Organisation C (Q25).
- High importance is allocated to the timeous provision of the right knowledge to speedily adapt to changes in the marketplace (Q29).
- Knowledge management is deemed as important in reducing time to market of products and services (Q30).
- Availability of knowledge currently increases Respondent Organisation C's agility (Q31).
- Knowledge management is perceived as important in providing the organisation with knowledge strategic to the business (Q32).
- Knowledge management currently facilitates the adoption of the eBusiness model by facilitating knowledge flow across organisational and geographical boundaries (Q36).
- Knowledge management currently facilitates the adoption of the eBusiness model by facilitating knowledge flow within organisational and geographical boundaries (Q37).
- Knowledge management is deemed as crucially important in helping the organisation to cope with more knowledge due to the explosion of richness and reach of knowledge in the eBusiness environment (Q39).

The following weaknesses (scores < 60%) within Respondent Organisation C have been identified in this diagram:

- It is not deemed highly important to share knowledge with customers / suppliers via extranets (Q1).
- Currently knowledge shared in virtual communities / collaborative forums is not adequately retained (Q2).
- Respondent Organisation C does not perform well in embedding knowledge management into day-to-day activities of staff (Q18).
- Respondent Organisation C scores extremely low on providing a single point of entry to the knowledge base (Q19).

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- Respondent Organisation C scores extremely low on providing an electronic interface with business partners (Q20).
- Respondent Organisation C scores very low on providing a useful structure to the organisation's knowledge base (Q23).
- Knowledge management plays an extremely small role currently in increasing innovation within the organisation (Q24).
- Knowledge management received a low score as factor in increasing employee productivity (Q26).
- Respondent Organisation C scores extremely low in conversion of tacit knowledge to explicit knowledge (Q27).
- Knowledge management does not largely affect the efficiency of decision-making (Q28).
- Knowledge management does not significantly contribute to increased organisational agility (Q33).
- Respondent Organisation C does not deem knowledge a corporate asset at all (very low score <40%) (Q34).
- Knowledge management does not play a significant role at all in allowing staff to adjust to their changing roles in the eBusiness environment through the provision of knowledge (Q35).
- Knowledge management is not perceived as being very important in helping the organisation to cope with more knowledge due to the explosion in richness and reach of knowledge in the eBusiness environment (Q38).

Analysis: Respondent Organisation D

Respondent Organisation D is a small to medium sized international professional services organisation. This organisation has an above average knowledge management profile, but there are some elements that deserve serious management attention.

The following strengths (score > 65%) in Respondent Organisation D have been identified in this diagram:

- It is very important for the knowledge management function to interface with / have responsibility for centers of excellence (Q3).
- Respondent Organisation D deems is very important to facilitate transparency in the organisation through the use of knowledge management (Q9).
- Providing 24-hour access to knowledge is extremely important (Q10).
- Knowledge management is ranked as extremely important in the prevention of duplication of work (Q11).
- Knowledge management currently enables the reuse of knowledge in various contexts to a large extent (Q12).

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- Knowledge management and related activities largely minimise time spent on searching for knowledge (Q13).
- Availability of knowledge leads to better customer service (Q14).
- Knowledge management is deemed to be extremely important in contributing to better service delivery (Q15).
- It is extremely important for Respondent Organisation D to identify tacit knowledge sources (Q16).
- Knowledge management plays an instrumental role in facilitating cross-divisional knowledge flow (Q17).
- Respondent Organisation D scores highly in providing a single point of access to knowledge (Q19).
- Providing one view of the customer is extremely important (Q21).
- Facilitating easier access to knowledge is extremely important (Q22).
- A useful structure to the knowledge base is provided (Q23).
- Knowledge management is deemed as a critical factor for accelerated learning (Q25).
- Knowledge management currently increases employee productivity significantly (Q26).
- It is extremely important for Respondent Organisation D to provide the right knowledge timeously to speedily adapt to changes in the marketplace (Q29).
- Knowledge management is extremely important in reducing time to market of products and services (Q30).
- Availability is important in increasing the organisation's agility (Q31).
- Knowledge management is important in providing the organisation with knowledge strategic to the business (Q32).
- Knowledge is perceived to be a corporate asset (Q34).
- Knowledge management is perceived as important in allowing staff to adjust to their changing roles in the eBusiness environment (Q35).
- Knowledge management currently facilitates the implementation of the eBusiness model by facilitating knowledge flow across organisational and geographical boundaries (Q36).
- Knowledge management currently facilitates the implementation of the eBusiness model by facilitating knowledge flow within organisational and geographical boundaries (Q37).
- Knowledge management is perceived as important in supporting the different knowledge flows due to changed business processes in the eBusiness model versus the traditional business model (Q38).
- Knowledge management is perceived as having a very high rating (100%) in helping the organisation cope with more knowledge due to the explosion of richness and reach of knowledge in the eBusiness environment (Q39).

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The following weaknesses (scores < 60%) within Respondent Organisation D have been identified in this diagram:

- Knowledge management does not adequately provide virtual communities / knowledge sharing platforms and / or tools (Q4).
- Knowledge management is not responsible for the structuring of content on the organisation's website (Q5).
- Collaboration through virtual communities does not adequately prevent duplication of work (Q6).
- Knowledge management does not play a significant role in facilitating an easier transition when organisational changes are made (Q7).
- Knowledge management is not perceived to as embedded in day-to-day activities of staff (Q18).
- Knowledge management plays virtually no role in providing an electronic interface with business partners (Q20).
- Knowledge management does not significantly contribute to increased innovation in the organisation (Q24).
- Tacit knowledge is to a great extent not converted into explicit knowledge (Q27).
- Knowledge management does not significantly contribute to increased efficiency in decision-making (Q28).
- Knowledge management does not play a significant role in assisting in identifying new business opportunities (Q33).

Analysis: Respondent Organisation E

Respondent Organisation E is a South African telecommunications organisation. This organisation has a slightly above average knowledge management profile. There are many knowledge management issues that warrant serious management attention.

The following strengths (score > 65%) in Respondent Organisation E have been identified in this diagram:

- It is very important to utilise extranets to share knowledge with customers / suppliers (Q1).
- Knowledge management currently fairly adequately provides virtual communities / knowledge sharing platforms and / or tools (Q4).
- It is very important to facilitate integration between eBusiness partners through knowledge management practices (Q8).
- Knowledge management is perceived to be extremely important in preventing duplication of work (Q11).

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- Knowledge management enables the reuse of knowledge in various contexts to a large extent (Q12).
- Knowledge management and its related activities minimise time spent in searching for knowledge (Q13).
- Availability of knowledge is very crucial to improve customer relationships (Q14).
- Knowledge management is very important in contributing to improved service delivery (Q15).
- It is very important to identify tacit knowledge sources (Q16).
- Knowledge management is crucial in enabling cross-divisional knowledge flow (Q17).
- It is extremely important for Respondent Organisation E to have one view of the customer (Q21).
- Facilitating easier access to knowledge is important (Q22).
- Knowledge management currently leads to increased innovation to a great extent (Q24).
- Knowledge management is a critical factor for accelerated learning (Q25).
- Knowledge management currently greatly increases employee productivity (Q26).
- It is extremely important to provide the right knowledge timeously to speedily adapt to changes in the marketplace (Q29).
- Knowledge management is very important in reducing time to market of products and services (Q30).
- Knowledge management is important in providing the organisation with knowledge strategic to the business (Q32).
- Knowledge management is very important in assisting in identifying new business opportunities (Q33).
- Knowledge is seen as a corporate asset to a large extent (Q34).
- Knowledge management is important in allowing staff to adjust to their changing roles in the eBusiness environment (Q35).

The following weaknesses (scores < 60%) within Respondent Organisation E have been identified in this diagram:

- The knowledge management function is only marginally responsible for the structuring of the knowledge on the organisation's website (Q5).
- Providing 24-hour access to knowledge is not perceived as very important (Q10).
- The organisation is not really perceived as providing a single point of entry to the knowledge base (Q19).
- Knowledge management only partially provides an electronic interface with business partners (Q20).
- The organisation's knowledge base does not have a useful structure (Q23).

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- Knowledge management is not perceived as playing a significant role in facilitating the implementation of the eBusiness model by facilitating knowledge flow across organisational and geographical boundaries (Q36).
- Knowledge management is not perceived as playing a significant role in facilitating the implementation of the eBusiness model by facilitating knowledge flow within organisational and geographical boundaries (Q37).
- Knowledge management is not seen as very important in supporting the different knowledge flows due to changed business processes in the eBusiness model versus the traditional business model (Q38).

Analysis: Respondent Organisation F

Respondent Organisation F is a large international professional services organisation. This organisation has a slightly above average knowledge management profile.

The following strengths (score > 65%) in Respondent Organisation F have been identified in this diagram:

- Respondent Organisation F deems it extremely important for the knowledge management function to interface with / have any responsibility for centers of excellence (Q3).
- Knowledge management provides virtual communities / knowledge sharing platforms and / or tools to a large extent (Q4).
- Knowledge management practices are perceived as playing a very important role in facilitating integration between eBusiness partners (Q8).
- Knowledge management is perceived as extremely important in facilitating transparency in the organisation (Q9).
- 24-Hour access to knowledge is critically important (Q10).
- Knowledge management is extremely important in preventing duplication of work (Q11).
- Knowledge management currently enables the reuse of knowledge in various contexts (Q12).
- Knowledge management assists in minimising time spent on searching for knowledge (Q13).
- Availability of knowledge is important in improving customer relationships (Q14).
- Knowledge management is very important in contributing to better service delivery (Q15).
- It is very important for Respondent Organisation F to identify tacit knowledge sources (Q16).
- Knowledge management is critically important in enabling cross-divisional flow of knowledge (Q17).
- Having one view of the customer is very important (Q21).

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- Facilitating easier access to knowledge is critically important for Respondent Organisation F (Q22).
- The organisation provides a useful structure to the knowledge base (Q23).
- Knowledge management is perceived to be a critical factor in accelerated learning (Q25).
- Knowledge management increases employee productivity (Q29).
- Knowledge management is important in reducing time to market of products and services (Q30).
- Knowledge management is extremely vital in providing knowledge strategic to the business (Q32).
- Knowledge is seen as a corporate asset (Q34).
- Knowledge management is very important in allowing staff to adjust to their changing roles in the eBusiness environment (Q35).
- Knowledge management is important in supporting the different knowledge flows due to changed business processes in the eBusiness model versus the traditional business model (Q38).
- Knowledge management is critically important in helping the organisation to cope with more knowledge due to the explosion of richness and reach of knowledge in the eBusiness environment (Q39).

The following weaknesses (scores < 60%) within Respondent Organisation F have been identified in this diagram:

- Knowledge shared in virtual communities / collaborative forums is not adequately retained (Q2).
- The knowledge management function is only partly responsible for the structuring of the company's website (Q5).
- Collaboration by means of virtual communities does not really prevent duplication of work (Q6).
- Knowledge management does not really facilitate an easier transition when organisational changes are made (Q7).
- Knowledge management does not currently lead to increased innovation (Q24).
- Knowledge management does not satisfactorily increase employee productivity (Q26).
- Tacit knowledge is not converted to explicit knowledge (Q27).
- Knowledge management does not adequately increase the efficiency of decision-making (Q28).
- The availability of knowledge does not increase the organisation's agility (Q31).

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Analysis: Respondent Organisation G

Respondent Organisation G is a large South African insurance organisation. This organisation has an above average knowledge management profile.

The following strengths (score > 65%) in Respondent Organisation G have been identified in this diagram:

- It is extremely important for Respondent Organisation G to share knowledge with customers / suppliers via an extranet (Q1).
- It is extremely important for the knowledge management function to interface with and / or have responsibility for centers of excellence (Q3).
- Knowledge management plays a large role in facilitating an easier transition when organisational changes are made (Q7).
- Knowledge management practices are critical in facilitating integration with eBusiness partners (Q8).
- It is extremely important in facilitating transparency in the organisation through the use of knowledge management practices (Q9).
- It is very important in providing 24-hour access to knowledge (Q10).
- Knowledge management is critically important in preventing the duplication of work (Q11).
- Knowledge management greatly enables the reuse of knowledge in various contexts (Q12).
- Knowledge management and its related activities are critically important in minimising time spent searching for knowledge (Q13).
- Availability of knowledge currently leads to improved customer relationships (Q14).
- Knowledge management is perceived as critical in contributing to improved service delivery (Q15).
- Identifying tacit knowledge sources is very important (Q16).
- Knowledge management is very important in enabling cross-divisional flow of knowledge (Q17).
- Having one view of the customer is critical (Q21).
- Facilitating easier access to knowledge is extremely important (Q22).
- Knowledge management is very important for accelerated learning (Q25).
- Knowledge management increases the efficiency of decision-making (Q28).
- It is critically important to provide the right knowledge timeously to speedily adapt to changes in the marketplace (Q29).
- Knowledge management is extremely important in reducing time to market of products and services (Q30).
- The availability of knowledge greatly increases the organisation's agility (Q31).

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- Knowledge management is critically important in providing knowledge strategic to the business (Q32).
- Knowledge management is critical in assisting in identifying new business opportunities (Q33).
- Knowledge is seen as a corporate asset (Q34).
- Knowledge management is extremely important in allowing staff to adjust to their changing roles in the eBusiness environment (Q35).
- Knowledge management facilitates the implementation of the eBusiness model by facilitating knowledge flow across organisational and geographical boundaries (Q36).
- Knowledge management facilitates the implementation of the eBusiness model by facilitating knowledge flow within organisational and geographical boundaries (Q37).
- Knowledge management is of critical importance in supporting the different knowledge flows due to changed business processes in the eBusiness model versus the traditional business model (Q38).
- Knowledge management is critical in helping the organisation cope with more knowledge due to the explosion of richness and reach of knowledge in the eBusiness environment (Q39).

The following weaknesses (scores < 60%) within Respondent Organisation G have been identified in this diagram:

- Knowledge management does not adequately provide virtual communities / knowledge sharing platforms and / or tools (Q4).
- Collaboration via virtual communities does not prevent duplication of work to a large extent (Q6).
- Knowledge management is not adequately embedded into staff's day-to-day activities (Q18).
- A single point of entry to the organisational knowledge base does not exist (Q19).
- Knowledge management does not provide an electronic interface with business partners (Q20).
- There is no useful structure to the knowledge base (Q23).
- Knowledge management does not increase employee productivity (Q26).

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B.4.1.3. Comparison of respondents with reference to closed questions with significant differences

For the purpose of this study, the focus will be on the respondent diagram (Figure B3), which includes only those organisations where more than one response was received. Figure B3 will be analysed below in terms significant individual differentiation between organisations with reference to specific questions. The purpose is to establish trends in specific organisations, and to identify high and low scores in organisations.

The following significant differentiation between responses has been identified:

- In the first question, responses are spread evenly, but with a rather large spread, from 50% to 90%, with Respondent Organisation C (IT) ranking the lowest and Respondent Organisation G (Insurance) ranking the highest. This signifies that the perception of importance to all organisations to share knowledge with customers and suppliers via extranets, differs vastly (Q1).
- Respondent Organisation C does not involve knowledge management at all in the structuring of its company website. The response received an extremely low score (Q5).
- In the seventh question, responses are spread evenly, but with a rather large spread, from 30% to 80%, with Respondent Organisation C (IT) again ranking the lowest and Respondent Organisation G (Insurance) ranking the highest. This signifies that the perception of the current role of knowledge management in facilitating an easier transition when organisational changes are made, differs vastly amongst respondents (Q7).
- Respondent Organisation G (insurance organisation) attaches a much higher importance rating to the facilitation of integration between eBusiness partners through knowledge management practices than the other respondents, though all of the respondents ranked it of high importance (Q8).
- Respondent Organisation E (telecommunications organisation) attaches a much lower importance rating (60%) to the facilitation of transparency in the organisation through knowledge management. The other respondent organisations have a high level of satisfaction on the facilitation of transparency provided through knowledge management (Q9).
- In question ten, responses are spread evenly, but with a rather large spread, from 50% to 96%, with Respondent Organisation E (Telecommunications) ranking the lowest and Respondent Organisation F (Professional Services) ranking the highest. This signifies that the perception relating to 24-hour access to knowledge differs vastly amongst respondents (Q10).

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- Respondent Organisation G (Insurance) ranks higher compared to the other respondents in the extent to which knowledge management and related activities minimizes time spent for knowledge (Q13).

- Respondent Organisation G (Insurance) ranks higher compared to the other respondents in the extent to which knowledge availability leads to better customer relationships (Q14).

- Respondent Organisation G (Insurance) ranks higher compared to the other respondents in the extent to which knowledge management contributes to better service delivery (Q15).

- Respondents differ to a large extent on the extent to which knowledge management enables cross-divisional knowledge flow, with scores ranging from 70% (Respondent E – Telecommunications) to 96% (Respondent F – Professional Services) (Q17).

- Respondents differ vastly on the extent to which their organisations provide a single point of entry to the organisational knowledge base, with scores ranging from 12% (Respondent C – IT) to 90% (Respondent D – Professional Services) (Q19).

- Respondent C (IT) ranked slightly lower compared to the rest of the respondents on the extent to which the organisation currently provides a useful structure to the knowledge base (Q23).

- Respondent C (IT) ranked slightly lower compared to the rest of the respondents on the extent to which the organisation currently leads to increased innovation (Q24).

- In question 26, responses are spread evenly, but with a rather large spread, from 40% to 70%, with Respondent Organisation D (Professional Services) and Organisation E (Telecommunications) ranking the highest and Respondent Organisation G (Insurance) ranking the lowest. This signifies that the perception of the extent to which knowledge management currently leads to increased employee productivity, differs vastly (Q26).

- In question 27, responses are spread evenly, but with a rather large spread, from 30% to 60%, with Respondent Organisation E (Telecommunications) and Respondent Organisation G (Insurance) ranking the highest and Respondent Organisation F (Professional Services) ranking the lowest. This signifies that the perception of the extent to which tacit knowledge is converted to explicit knowledge, differs vastly (Q27).

- In question 28, responses are spread evenly, but with a rather large spread, from 40% to 70%, with Respondent Organisation G (Insurance) ranking the highest and Respondent Organisation F (Professional Services) ranking the lowest. This signifies that the perception of the extent to which tacit knowledge is converted to explicit knowledge, differs vastly (Q28).

- Respondent Organisation G (Insurance) deems provision of the right knowledge speedily to adapt to changes in the marketplace more important than the other respondent organisations (Q29).

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- In question 31, responses are spread evenly, but with a rather large spread, from 55% to 90%, with Respondent Organisation G (Insurance) ranking the highest and Respondent Organisation F (Professional Services) ranking the lowest. This signifies that the perception of the extent to which availability of knowledge currently increases organisational agility differs quite vastly (Q31).

- Respondent Organisation G (Insurance) deems the provision of knowledge strategic to the business as more important than the other respondent organisations (Q32).

- In question 33, responses are spread evenly, but with a rather large spread, from 54% to 100%, with Respondent Organisation G (Insurance) ranking the highest and Respondent Organisation C (IT) ranking the lowest. This signifies that the perception of the importance of knowledge management in identifying new business opportunities, differs vastly (Q33).

- Respondent Organisation C (IT) perceives knowledge much less of a corporate asset than the other respondent organisations (Q34).

- Respondent Organisation C (IT) perceives knowledge management of much less importance than other respondent organisations in allowing staff to adapt to their changing roles in the eBusiness environment (Q35).

- In question 36, responses are spread evenly, but with a rather large spread, from 40% to 80%, with Respondent Organisation D (Professional Services) and Respondent Organisation G (Insurance) ranking the highest and Respondent Organisation E (Telecommunications) ranking the lowest. This signifies that the perception of the importance of knowledge management in facilitating the implementation of the eBusiness model by facilitating knowledge flow across organisational and geographical boundaries, differs vastly (Q36).

- In question 37, responses are spread evenly, but with a rather large spread, from 50% to 80%, with Respondent Organisation D (Professional Services) and Respondent Organisation G (Insurance) ranking the highest and Respondent Organisation E (Telecommunications) ranking the lowest. This signifies that the perception of the importance of knowledge management in facilitating the implementation of the eBusiness model by facilitating knowledge flow within organisational and geographical boundaries, differs vastly (Q37).

- In question 38, responses are spread evenly, but with a rather large spread, from 50% to 100%, with Respondent Organisation G (Insurance) ranking the highest and Respondent Organisation C (IT) ranking the lowest. This signifies that the perception of the importance of knowledge management in supporting the different knowledge flows due to changed business processes in the eBusiness model versus the traditional business model, differs vastly (Q38).

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B.4.1.4. Comparison of respondents with reference to average of each of the ten strategic dimensions
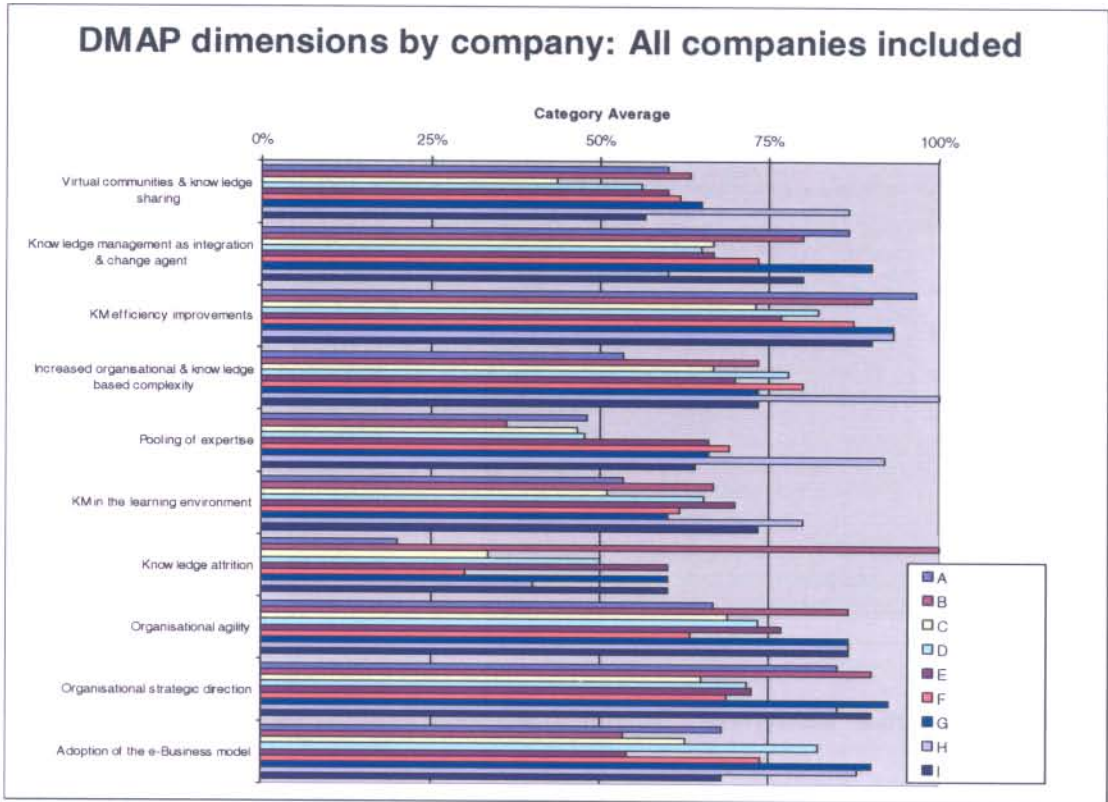

Figure B4. DMAP dimensions by company: all companies included

All companies' results per question in the DMAP have been included in the diagram above. For the purpose of the analysis of this questionnaire, only the profiles of the companies detailed in the diagram below will be analysed, as more than one response were received from these companies, rendering the sample more representative.

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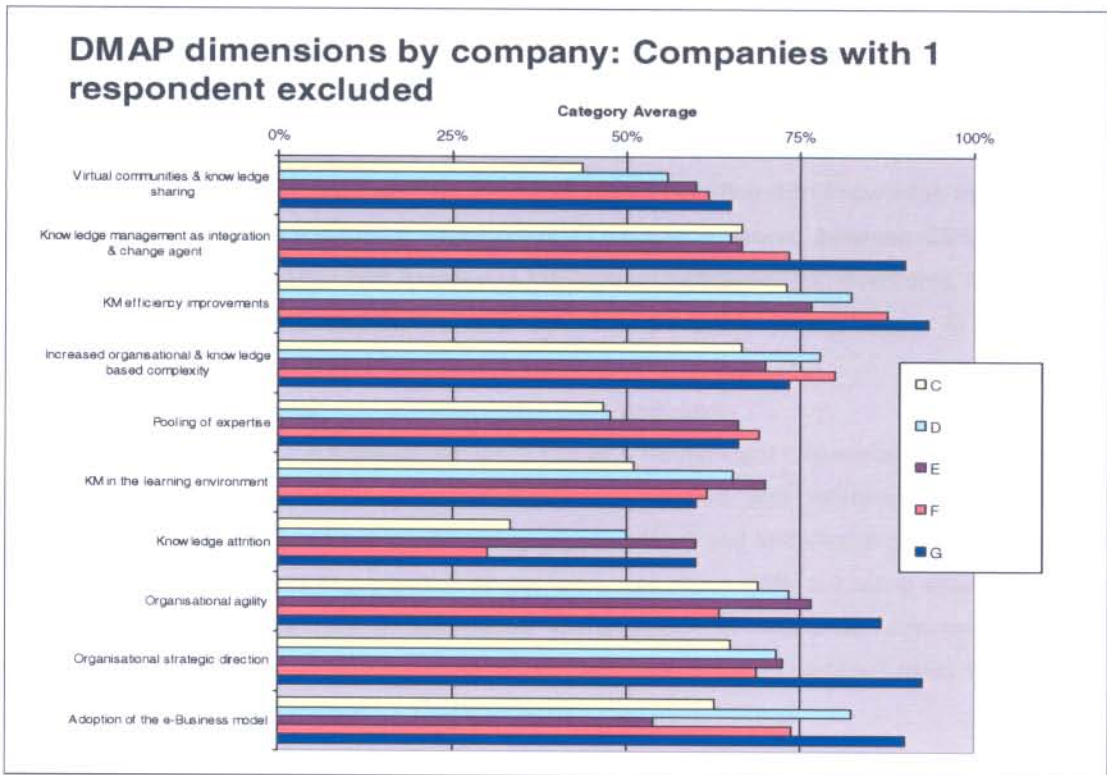
Figure B5. DMAP dimensions by company: companies with one respondent excluded

The diagram above will be analysed with reference to the level of the scoring for organisations within each strategic dimension, and a comparison between the generic scores of the strategic dimensions will be made.

- Virtual communities and knowledge sharing

  The score for this dimension is fairly low. 3 Out of 5 Respondent Organisations scored between 60% and 65%, indicating that they are not entirely satisfied with the performance relating to virtual communities and knowledge sharing. 2 Of the Respondent Organisation scores were well below 60%, indicating severe problems. Respondent Organisation C (IT) had the lowest score, whilst Respondent Organisation G (Insurance) had the highest score.

- Knowledge management as integration and change agent

  The score for this dimension is high. 2 Out of 5 Respondent Organisations scored above 75%, indicating that they are exceptionally satisfied with the performance relating to knowledge management as integration and change agent. 3 Of the Respondent Organisation scores were well above 65%, indicating satisfaction with the performance relating to knowledge management as integration and change agent. Respondent

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Organisation D (Professional Services) had the lowest score, whilst Respondent Organisation G (Insurance) had the highest score.

- Knowledge management efficiency improvements

The score for this dimension is very high. 4 Out of 5 Respondent Organisations scored above 75%, indicating that they are exceptionally satisfied with knowledge management efficiency improvements. 1 Respondent Organisation scored between 65% and 75%, indicating satisfaction with knowledge management efficiency improvements. Respondent Organisation C (IT) had the lowest score, whilst Respondent Organisation G (Insurance) had the highest score.

- Increased organisational and knowledge base complexity

The score for this dimension is high. 2 Out of 5 Respondent Organisations scored above 75%, indicating that they are exceptionally satisfied with reference to the role of knowledge management in alleviating organisational and knowledge base complexity. 3 Of the Respondent Organisation scores were well above 65%, indicating satisfaction with reference to the role of knowledge management in alleviating organisational and knowledge base complexity. Respondent Organisation C (IT) had the lowest score, whilst Respondent Organisation F (Insurance) had the highest score.

- Pooling of expertise

The score for this dimension is average. 3 out of 5 Respondent Organisations scored between 65% and 75%, indicating that they are satisfied with reference to the role of knowledge management in pooling of expertise. 2 Of the Respondent Organisation scores were well below 50%, indicating severe problems with reference to the role of knowledge management in the pooling of expertise. Respondent Organisation C (IT) had the lowest score, whilst Respondent Organisation F (Professional Services) had the highest score.

- Knowledge management in the learning environment

The score for this dimension is average. 2 out of 5 Respondent Organisations scored between 65% and 75%, indicating that they are satisfied with reference to the role of knowledge management in the learning environment. 2 Of the Respondent Organisation scores were between 60% and 65%, indicating some dissatisfaction with reference to the role of knowledge management in the learning environment. 1 Respondent Organisation had a score below 60% indicating severe problems with reference to the role of knowledge management in the learning environment. Respondent Organisation C (IT) had the lowest score, whilst Respondent Organisation E (Telecommunications) had the highest score.

- Knowledge attrition

The score for this dimension is low. All Respondent Organisations scored 60% or below indicating severe problems relating to the role of knowledge management in preventing knowledge attrition. Respondent Organisation C (IT) had the lowest score (at 29%

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indicating, extremely severe problems in this area), whilst Respondent Organisation F (Professional Services) and Respondent Organisation G (Insurance) had the highest scores.

- Organisational agility

  The score for this dimension is above average. 2 out of 5 Respondent Organisations scored higher than 75%, indicating exceptional satisfaction with reference to the role of knowledge management in achieving organisational agility. 2 Of the Respondent Organisation scores were between 65% and 75%, indicating satisfaction satisfaction with reference to the role of knowledge management in achieving organisational agility. 1 Respondent Organisation had a score between 60% and 65%, indicating some dissatisfaction with reference to the role of knowledge management in achieving organisational agility. Respondent Organisation F (Professional Services) had the lowest score, whilst Respondent Organisation G (Insurance) had the highest score.

- Organisational strategic direction

  The score for this dimension is high. 1 Respondent Organisation scored higher than 75%, indicating exceptional satisfaction with the role of knowledge management in organisational strategic direction. 4 out of 5 Respondent Organisations scored between 65% and 75%, indicating satisfaction with the role of knowledge management in organisational strategic direction. Respondent Organisation C (IT) had the lowest score, whilst Respondent Organisation G (Insurance) had the highest score.

- Adoption of the eBusiness model

  The score for this dimension is above average. 2 Respondent Organisations scored higher than 75%, indicating exceptional satisfaction with the role of knowledge management in the adoption of the eBusiness model. 2 out of 5 Respondent Organisations scored between 65% and 75%, indicating satisfaction with the role of knowledge management in the adoption of the eBusiness model. 1 Respondent Organisation scored below 60%, indicating severe problems with the role of knowledge management in the adoption of the eBusiness model. Respondent Organisation E (Telecommunications) had the lowest score, whilst Respondent Organisation G (Insurance) had the highest score.

In analysis of the strategic dimensions in comparison to one another, there are clearly some high scoring dimensions and low scoring dimensions.

The top three high scoring dimensions are:
- Knowledge management efficiency improvements received the highest overall score from all the respondent organisations. The lowest score in that dimension is 73% and the highest 94%.

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- The second highest score was the role of knowledge management in overall strategic direction, with the highest score on 93%, and all the other scores above 65%.
- The third ranking score was achieved by knowledge management as integration and change agent, with a highest score of 90% and the rest of the scores above 65%.

The lowest scoring dimensions are:

- Knowledge attrition received the lowest ranking score, with the highest score on 60% and the lowest score on 29%, indicating severe dissatisfaction at the highest level, and extreme problems that need change management intervention at the lowest level.
- The second lowest score was allocated for virtual communities and knowledge sharing, with the highest score of 65%, and the lowest score of 44%, indicating dissatisfaction at the highest level and severe problems at the lowest level.
- Pooling of expertise is the third lowest scoring dimension. Its highest score is 71%, indicating some satisfaction, and the lowest two scores on 48% and 47% respectively, indicating severe problems.

B.4.1.5. Comparison of industries with reference to average of each of the ten strategic dimensions
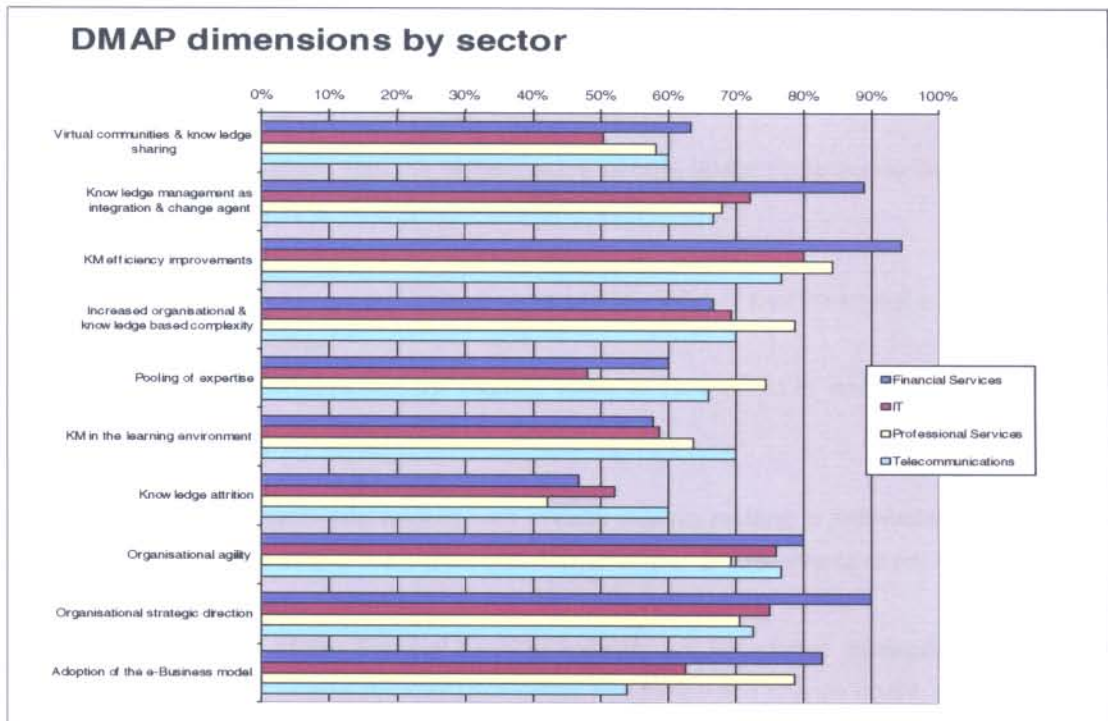

Figure B6. DMAP dimensions by sector

This diagram includes all respondents in the sectors indicated, including those with just one respondent. It is important to note that, with reference to this study, the financial services industry includes both banking and insurance, the IT industry includes small, medium and

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large IT organisations, the professional services industry includes medium and large professional services firms, and the telecommunications industry is represented by one of the major players in the telecommunications arena in South Africa.

The analysis of this diagram will include a comparison between the four industries, the highest and lowest ranking industries in relation to the three highest and lowest scoring dimensions, and industry analysis with reference to the high and low scores of each industry relating to the knowledge management strategic dimensions as identified in this study.

The scores of the industries relating to the three highest scoring dimensions are:
- Knowledge management efficiency improvements
  Financial Services had the highest score of 95% whilst Telecommunications had the lowest score of 77%.
- Role of knowledge management in overall strategic direction
  Financial Services had the highest score of 90% whilst Professional Services had the lowest score of 71%.
- Knowledge management as integration and change agent
  Financial Services had the highest score of 88% whilst Telecommunications had the lowest score of 66%.

The scores of the industries relating to the three lowest scoring dimensions are:
- Knowledge attrition
  Telecommunications had the highest score of 60% whilst Professional Services had the lowest score of 42%.
- Virtual communities and knowledge sharing
  Financial Services had the highest score of 63% whilst IT had the lowest score of 51%.
- Pooling of expertise
  Professional Services had the highest score of 75% whilst IT had the lowest score of 48%.

The top three strengths and weaknesses of each industry relating to knowledge management strategic dimensions have been identified. The strengths and weaknesses per industry are:
- Financial Services
  The strengths of the financial services industry are knowledge management efficiency improvements, knowledge management as integration and change agent, and the role of knowledge management in strategic organisational direction. The weaknesses of the Financial Services industry are knowledge attrition, knowledge management in the learning environment and pooling of expertise.

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- IT

  The strengths of the IT industry are knowledge management efficiency improvements, organisational agility and organisational strategic direction. The weaknesses of the IT industry are pooling of expertise, virtual communities and knowledge sharing, and the pooling of expertise.

- Professional Services

  The strengths of the Professional Services industry are knowledge management efficiency improvements, increased organisational and knowledge base complexity, and adoption of the eBusiness model. The weaknesses of the Professional Services industry are knowledge attrition, virtual communities and knowledge sharing, and knowledge management in the learning environment.

- Telecommunications

  The strengths of the Telecommunications industry are knowledge management efficiency improvements, organisational agility and organisational strategic direction. The weaknesses of the Telecommunications industry are adoption of the eBusiness model, virtual communities and knowledge sharing, and knowledge attrition.

Comparing the total scores of the industries on this diagram (adding all scores and expressing them as a percentage), Financial Services scored way above the other industries at 74.2%, followed by Professional Services at 68.8%, Telecommunications at 67.6% and IT at 64.6%.

B.4.1.6. Comparison of perceptions of knowledge workers and other staff
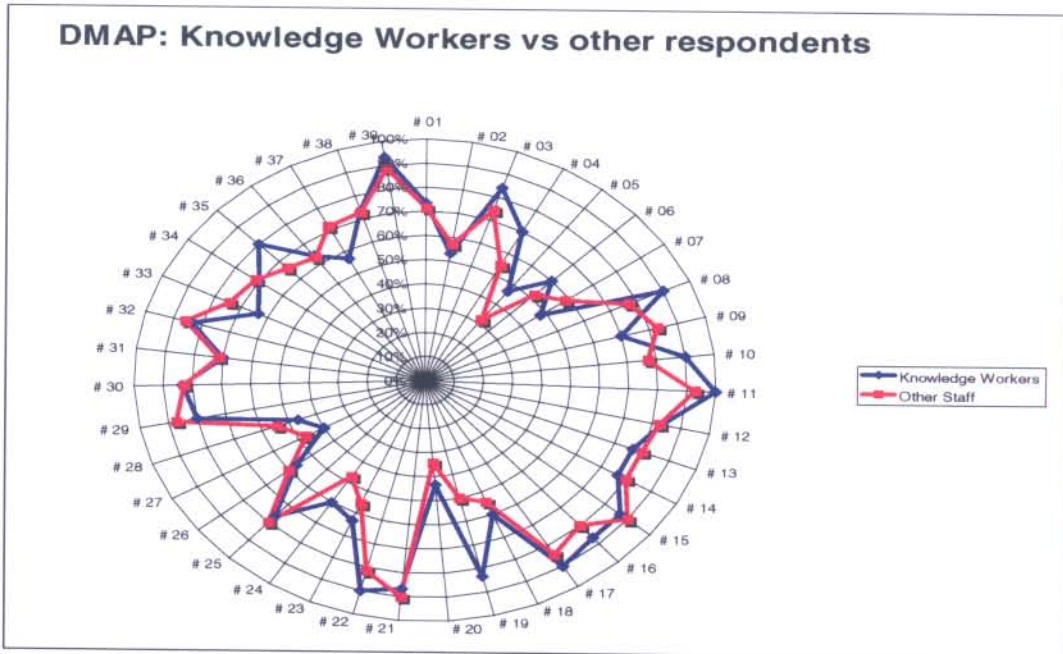

Figure B7. DMAP: knowledge workers vs. other respondents

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In the diagram above, it is clear that the perceptions of knowledge workers and users of knowledge management practices and systems, do not differ vastly. In the section below, the major differences in perceptions (>10%) will be highlighted.

- The first major difference in perception is the extent to which knowledge management provides virtual communities / knowledge sharing platforms and / or tools. Knowledge workers are of the opinion that knowledge management plays a larger role in providing these platforms, in contrast with the perceptions of other staff (Q4).

- Differences in perception also exist on the role of knowledge management in structuring the organisations' website content. Knowledge workers perceive themselves to be involved more than other staff perceives them to be (Q5).

- The role of knowledge management in facilitating an easier transition when organisational changes are made is perceived greater by other staff than knowledge workers themselves (Q7).

- Knowledge workers perceive the role of knowledge management in facilitating integration between eBusiness partners through knowledge management practices to be higher than other staff do (Q8).

- Other staff perceives the role of knowledge management in facilitating transparency in the organisation to be higher than knowledge workers do (Q9).

- Knowledge workers perceive 24-hour access to knowledge as more important than other staff do (Q10).

- There is a huge (30%) perception difference on the provision of one single point of entry to knowledge in the organisation. Knowledge workers perceive the provision thereof much higher than other staff do (Q19).

- Knowledge workers believe that knowledge management leads to innovation more than other staff do (Q24).

- Other staff perceives knowledge management as being more important in identifying new business opportunities than knowledge workers do (Q33).

- Knowledge workers perceive knowledge management to play a larger role in allowing staff to adapt to their changing roles in the eBusiness environment rather than other staff does (Q35).

- Other staff perceives knowledge management as playing a larger role in facilitating the flow of knowledge within organisational and geographical boundaries (Q37).

B.4.1.7. Relative importance vs. performance rating

The DMAP questionnaire was also designed to test the importance versus performance of the dimensions. For this purpose, the dimensions were numbered in order to plot them graphically with reference to importance versus performance:
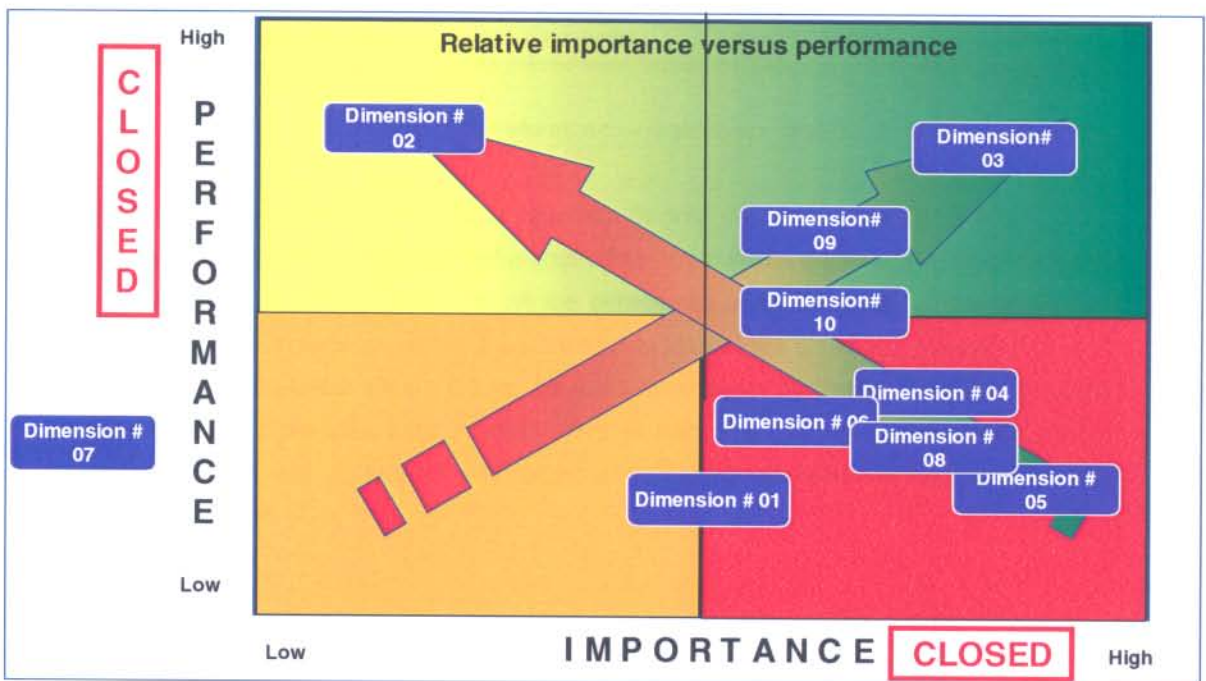
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1. Virtual communities and knowledge sharing
2. Knowledge management as integration and change agent
3. Knowledge management efficiency improvements
4. Increased organisational and knowledge base complexity
5. Pooling of expertise
6. Knowledge management in the learning environment
7. Knowledge attrition
8. Organisational agility
9. Organisational strategy definition
10. Adoption of the eBusiness model

The dimensions were plotted on a matrix, where the X-axis indicates performance and the Y-axis indicates importance (refer Figure B9) and extrapolated to a table indicating the percentages (Figure B10).

Figure B8. Relative importance versus performance of 10 dimensions

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Performance-importance matrix

		Relative Importance	Relative Performance
1	Virtual communities and knowledge sharing	51%	22%
2	Knowledge management as integration and change agent	20%	80%
3	Knowledge management efficiency improvements	80%	80%
4	Increased organisational and knowledge base complexity	71%	32%
5	Pooling of expertise	76%	25%
6	Knowledge management in the learning environment	62%	30%
8	Organisational agility	71%	27%
9	Organisational strategic direction	61%	64%
10	Adoption of the eBusiness model	60%	50%

Figure B9. Performance – importance matrix

Before the researcher proceeds, it is important to note that the Figure B8 denotes *relative* importance. Figure B8 represents just a small slice of the actual data sample, as can be seen in Figure B10. Due to the fact that all the dimensions were clustered in one area in the performance vs. importance rating, it was difficult to identify the dimension locations in such a large data set, therefore Figure B8 will be used for analysis purposes, but with the context that Figure B10 provides kept in mind. This is also true for Figure B9, which denotes percentages for each dimension with reference to importance versus importance, relating it back to Figure B8.

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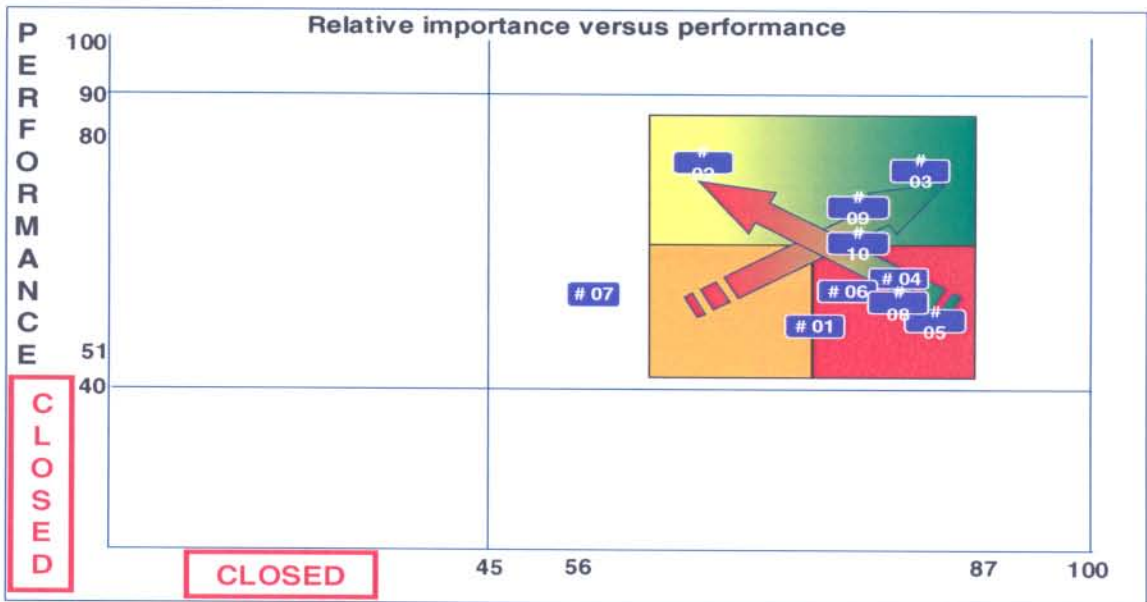
Relative importance versus performance

Figure B10. *Relative importance versus performance of 10 dimensions in context*

The performance-importance matrix results indicate that most dimensions that are important to the respondent organisations (Dimensions 1, 4, 5, 6, 8), are not performed well at all. Some dimensions that are important, are, however, being performed well (Dimensions 3, 9 and 10). Dimensions that were identified as important but not performing adequately are virtual communities and knowledge sharing, the role of knowledge management in overcoming increased organisational and knowledge base complexity, pooling of expertise, knowledge management in the learning environment and the role of knowledge management in organisational agility. Dimensions that were identified as performing well and are perceived as being important, are knowledge management efficiency improvements, the role of knowledge management in organisational strategic direction setting, and the role of knowledge management in adoption of the eBusiness model (see Figures B8 & B9).

Knowledge management as change and integration agent (Dimension 2) has little importance, though performance is very high. Knowledge management's role in prevention of knowledge attrition ranked off the "relative chart" indicating no importance and no performance *in relative terms* (see Figure B8 & B10).

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B.4.2. Results: open questions

B.4.2.1. Question 40: Describe the two most critical requirements for knowledge flow across divisional, organisational and geographical boundaries.
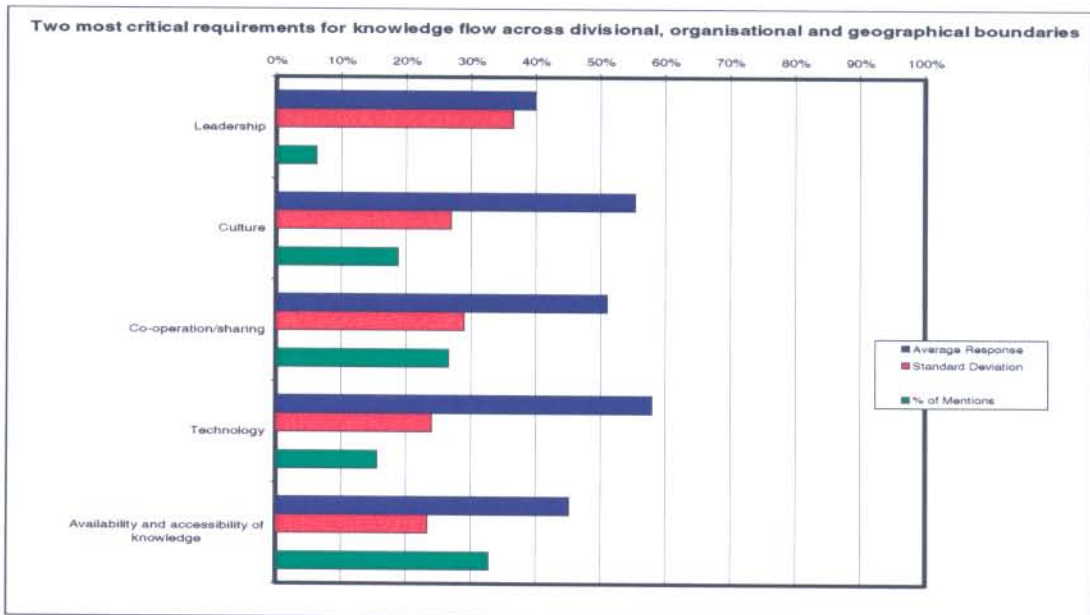

Figure B11. Two most critical requirements for knowledge flow across divisional, organisational and geographical boundaries

The survey indicated a below average rating for the performance of the respondents with reference to factors critical to the flow of knowledge across divisional, organisational and geographical boundaries. This dimension should receive urgent attention from top management of the respondent organisations in question to improve knowledge flow in general.

There are no strengths in this diagram. It must be pointed out, however, that the relatively high number of mentions received with reference to the availability and accessibility of knowledge, together with a standard deviation of below 24% shows that this is a factor deemed as important and that is currently performed to some extent across the board, and should be built upon in future. There is also some consensus that technology is critical and is currently utilised to enable knowledge flow across boundaries.

The following weaknesses have been identified:
- Leadership scored quite a low percentage (40%) for current performance, the high standard deviation (37%) together with the low percentage of mentions (6%) indicates

that it is not deemed important and is not widely prevalent in the organisations of the majority of respondents. A small percentage of the respondents thus rated it as having some importance and is currently implemented to some extent, with the majority rating it as low.

- Culture scored a relatively low percentage for current performance (55%). Together with a high standard deviation of 27% and a low percentage of mentions (28%), culture is seen as somewhat important and has been implemented to some degree by selected respondents. Management does not view this as a critical issue.

- Knowledge sharing and co-operation has been implemented and is seen as important to some extent (52%), but the high standard deviation (29%) and the small amount of mentions (26%) indicate that it is somewhat more important and has been implemented to a greater extent in some organisations than in others. It is not, however, receiving adequate management attention

B.4.2.2. Question 41: Describe the two most prevalent performance measurements relating to knowledge management in your organisation
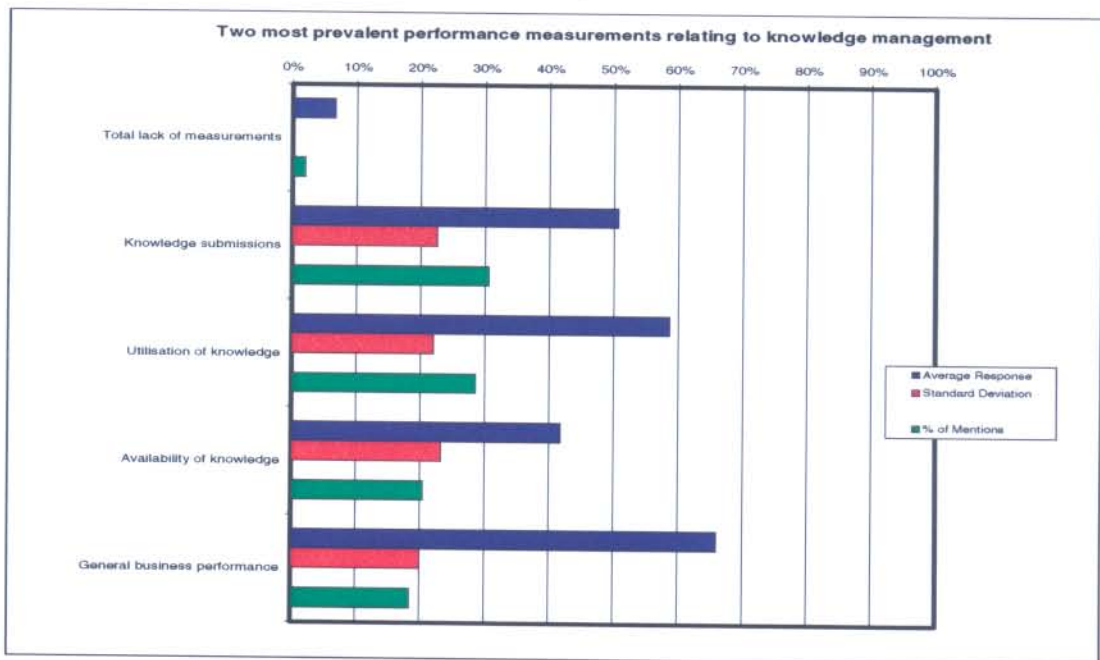

Figure B12. Two most prevalent performance measurements relating to knowledge management

The survey indicated a below average rating for the performance of the respondents with reference to specific knowledge management performance measures. This dimension should receive urgent attention from top management of the respondent organisations in question to improve the implementation, utilisation and management of knowledge management systems and the knowledge management philosophy.

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The following strengths have been identified in this diagram:

- 66% of respondents indicated that knowledge management activity was implicitly measured as part of general business performance of staff. Though this comes to the fore as a strong point that can be built upon, the researcher argues that it can also be a weak point, as knowledge management is not explicitly measured and rewarded, making it more difficult to create a knowledge sharing culture and mindset.

The following weaknesses have been identified in this diagram:

- In a very small percentage of organisations, no explicit knowledge management measures exist.
- Weak percentage scores were allocated to current performance of knowledge submissions, knowledge utilisation and knowledge availability as performance measures. The standard deviation was quite low, ranging between 22%-23%, showing agreement amongst respondents. Both knowledge utilisation and submissions received 28-31% of mentions, indicating that it is of some importance.

B.4.2.3. Question 42: Describe the two most essential leadership elements in knowledge management in your organisation
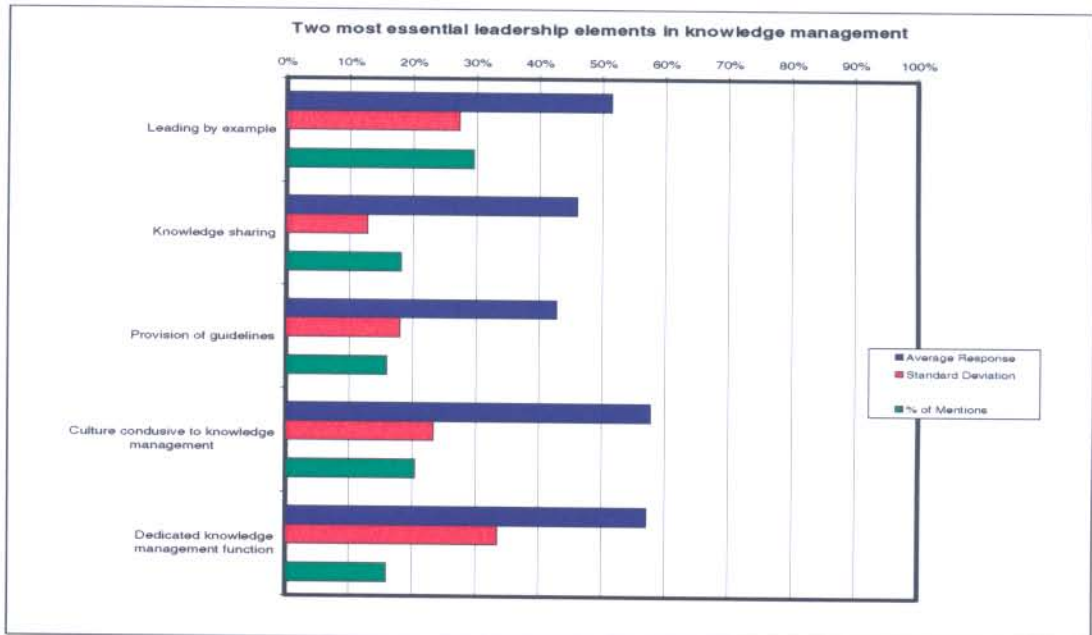

Figure B13. Two most essential leadership elements in knowledge management

The survey indicated a below average rating for the performance of the respondents with reference to specific knowledge management leadership issues. This dimension should receive urgent attention from top management of the respondent organisations in question to

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improve management of knowledge management systems and the knowledge management philosophy within the respondent organisations.

No strengths have been identified in this diagram.

The following weaknesses have been identified in this diagram:

- Culture conducive to knowledge management scores the highest at 58%, with a standard deviation of 24%, indicating some agreement between respondents on the performance of this leadership element with reference to knowledge management. The relative low number of mentions (20%) indicates that it is not a top of mind issue.
- A dedicated knowledge management function is scored at 57%, but the high standard deviation (33%) shows that some organisations perceive this as important and have implemented the concept, whilst others have not gone that route at all. The relatively high number of mentions (34%) indicates that it is deemed as an important issue.
- Leading by example also scores second highest at 52%, but the high standard deviation of 27% shows that respondents differ on the performance of this leadership element with reference to knowledge management. It is important to note, however, that it is the element mentioned the most (29%), which shows that the importance of this element is fairly high.
- Knowledge sharing and provision of guidelines are the two leadership elements that respondents have most agreement on (low standard deviations of 13% and 17% respectively). The scores for current performance are still below expectations at 46% and 43% respectively, and the importance is not deemed as high, with the number of mentions on 16% and 18% respectively.

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B.4.2.4. Question 43: Describe the role of communication in knowledge management
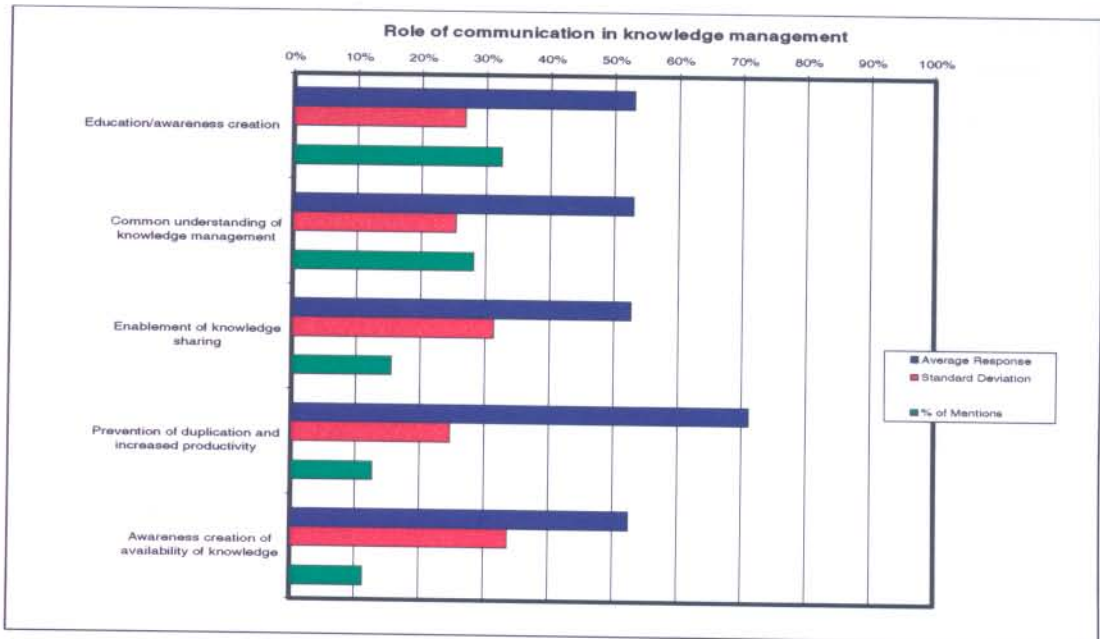

Figure B14. Role of communication in knowledge management

The survey indicated a below average rating for the performance of the respondents with reference to the role of communication in knowledge management. This dimension should receive urgent attention from organisations' top management, to ensure that communication is utilised as change agent for the institutionalising of knowledge management in organisations.

The following strengths have been identified in this diagram:

- Communication is currently utilised satisfactorily within the knowledge management environment to ensure increased productivity and to prevent duplication (71%). The standard deviation of 24% shows some agreement on this issue, and a relatively low percentage of mentions (12%) show that although currently performed it is not deemed as important.

The following weaknesses have been identified in this diagram:

- Awareness creation of the availability of knowledge has a score of 52%, but the high standard deviation (33%), shows that there are big differences in organisations. The low score on number of mentions (11%) also shows that this awareness creation of the availability of knowledge is not of primary importance in communication in the knowledge management arena.

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- Communication as enabler of knowledge sharing has a score of 52%, but the high standard deviation (31%), indicates major differences in different organisations. The low score on number of mentions (15%) also shows that enabling of knowledge sharing is not perceived as a primary role of communication in the knowledge management arena.
- General awareness creation of knowledge management scored 52%. The high standard deviation (26%) suggests that organisations differ in application of this element. The relatively high number of mentions (32%) suggests that most organisations deem this element as having some role in communication in the knowledge management arena.
- Gaining a common understanding of knowledge management scored 52%. The high standard deviation (25%) suggests that organisations differ in their perceptions regarding the practical application of this element as part of communication. The relatively high number of mentions (28%) shows that most respondents deem this element as having some role in communication in the knowledge management arena.

B.4.2.5. Question 44: Describe the two most critical operational efficiencies effected by knowledge management
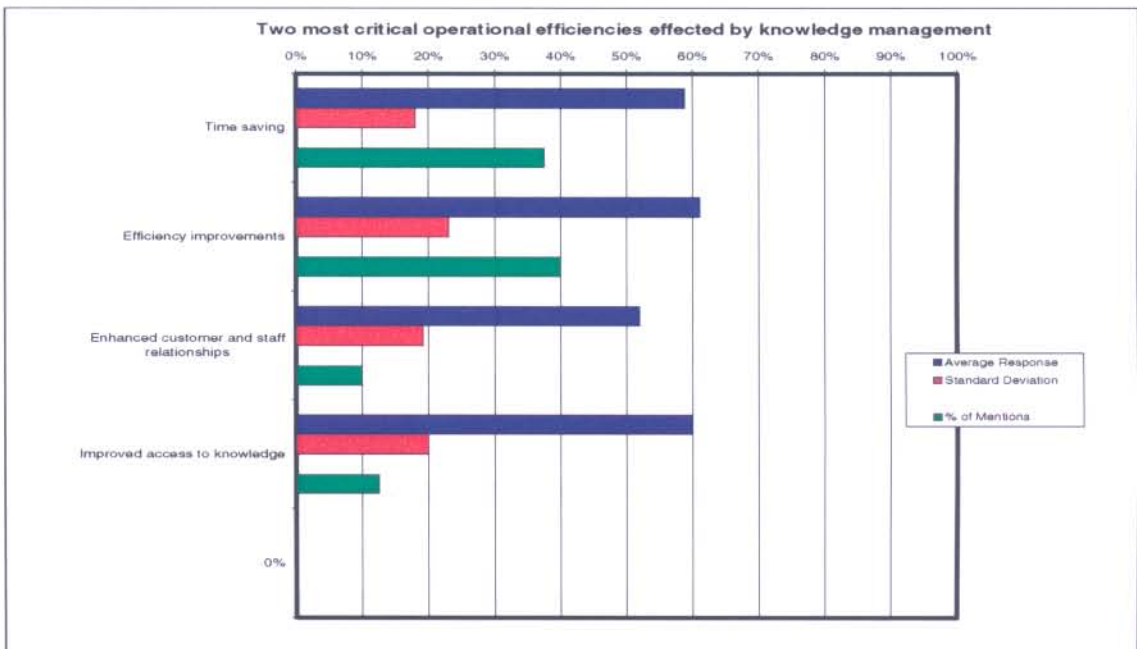

Figure B15. Two most critical operational efficiencies effected by knowledge management

The survey indicated a below average rating for the performance of the respondents with reference to critical operational efficiencies in knowledge management. It is, however, interesting to note that the standard deviation is low in all the strategic themes, indicating agreement on the current performance in these areas.

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No strengths have been identified in this diagram.

The following weaknesses have been identified in this diagram:

- A score of 62% for efficiency improvements (defined as working faster and smarter) shows that respondents are not entirely satisfied with the current performance. There is a reasonable agreement (standard deviation of 23%) amongst respondents, with the issue mentioned in 40% of the responses, indicating high importance to the respondents.

- Improved access to knowledge was scored at 60%, with reasonable agreement amongst respondents (20% standard deviation). The issue is however not a top of mind issue as it scored low in number of mentions (12%).

- Time saving scored 59% with a low standard deviation of 17%, showing agreement amongst respondents. The number of mentions (37%) shows that time saving is seen as a critical operational efficiency for knowledge management, even though the current performance is perceived as inadequate.

- Enhanced customer and staff relationships received a relatively low score (52%), though there is agreement amongst respondents on the current performance in their organisations relating to this issue (standard deviation of 17%). It was only mentioned in 10% of responses, indicating that it is not really a top of mind issue in achieving operational efficiencies in knowledge management.

B.4.2.6. Question 45: Describe the two most critical strategic efficiencies effected by knowledge management
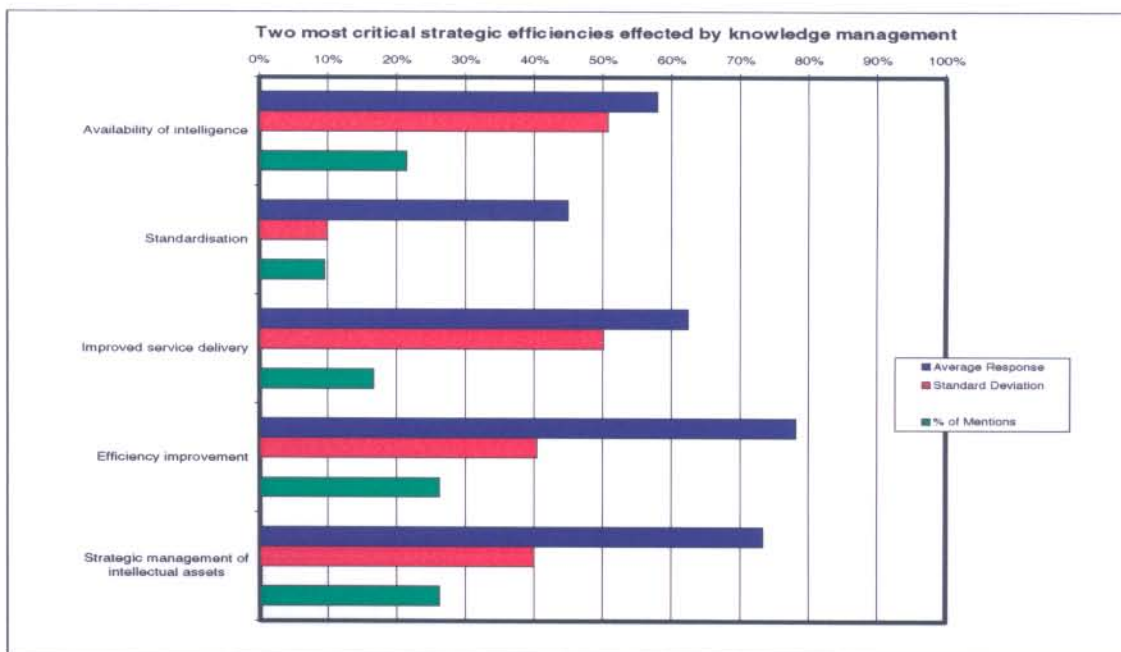

Figure B16. Two most critical strategic efficiencies effected by knowledge management

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The survey indicated an average rating for the performance of the respondents with reference to critical strategic efficiencies in knowledge management. It is, however, interesting to note that the standard deviation is high in most of the strategic themes, indicating a high discrepancy in opinion amongst respondents.

The following strengths have been identified in this diagram:

- Strategic efficiency improvements (e.g. quicker and more accurate decision making) scored 78%, but a high standard deviation of 41% shows disagreement amongst respondents on the current performance of efficiency improvements in the knowledge management arena. Strategic efficiency improvements were mentioned in 26% of the responses, indicating some importance attached to strategic efficiency improvements.
- Strategic management of intellectual assets also obtained a high score of 73%, but the high standard deviation of 40% indicates that it is more important to some respondents than to others. It received a 26% number of mentions in the response, indicating relative importance of strategic management of intellectual assets.
- Improved service delivery, with a score of 62%, leaves room for improvement according to the respondents. The high standard deviation of 50% shows that in some cases this is achieved in practice, whilst in other organisations it is not the case at all. This theme had a low rate of mentions at 16%, showing that it is not deemed as significant.

The following weaknesses have been identified in this diagram:

- A score of 58% for availability of intelligence shows there is room for improvement in this area. The high standard deviation of 51% indicates that it is extremely relevant for some organisations and not at all or of very little importance for others. This theme was mentioned in 22% of the responses, i.e. some importance is attached to the availability of intelligence.
- Standardisation was the only theme on which there was significant agreement (standard deviation of 9%), and it received a reasonable, though still unsatisfactory score of 45%. It was also mentioned in only 9% of the responses, and is therefore not perceived as important by the respondents.