

The role of knowledge management in eBusiness and customer relationship management

10. DMAP INTERPRETATION TESTED AGAINST HYPOTHESIS

10.1. Approach

As stated previously, 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, *within the South African context*. To enable this, the researcher followed a specific approach in achieving the expected results (see Figure 34). *This chapter focuses on Phase 2 in the figure.*

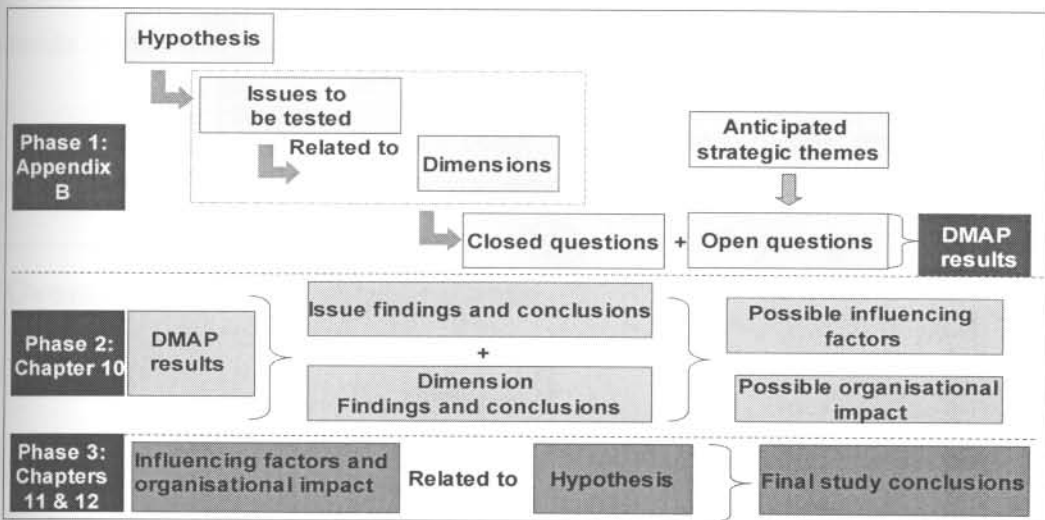


Figure 34. Approach of testing hypothesis and formulating conclusions and recommendations

Prior to drawing up the DMAP questionnaire, the issues to be tested in the hypothesis (Chapter 8) were identified and mapped to ten strategic dimensions for the *closed question* section of the questionnaire (refer Appendix B.2). In this chapter, the researcher aims to test each of these issues within each of the dimensions as identified in the hypothesis, against the results of the questionnaire. The researcher will also indicate where these strategic dimensions impact a generic organisational value chain. The researcher will analyse the dimension results and issue results with reference to possible influencing factors that could have led to the results as well as the impact that the results could have on organisations. The researcher is aiming at addressing the "why?" and "so what?" perspectives on the analysed findings.

The open-ended strategic themes and related questions were aimed at addressing those questions posed in the hypothesis that were not covered by the closed questions, but are relevant to the testing of the hypothesis. Potential strategic themes were identified for the

The role of knowledge management in eBusiness and customer relationship management

open questions prior to drawing up the questionnaire. In this chapter, the researcher aims to analyse the open questions with reference to the strategic themes identified by respondents. The researcher will also analyse the results with reference to possible influencing factors that could have led to the results as well as the impact that the results could have on organisations. The researcher is aiming at addressing the “why?” and “so what?” perspectives on the analysed findings. The researcher also aims to compare the anticipated strategic themes identified prior to the study and based on the hypothesis, with the strategic themes that were identified in the questionnaire responses in order to understand the differences together with the potential causes and the potential impact on organisations.

The results of the DMAP questionnaire are included as Appendix B.

The findings and conclusions in 10.2 are based on the following graphs, reproduced from Appendix B. These figures have been reproduced here to enable easier reading.

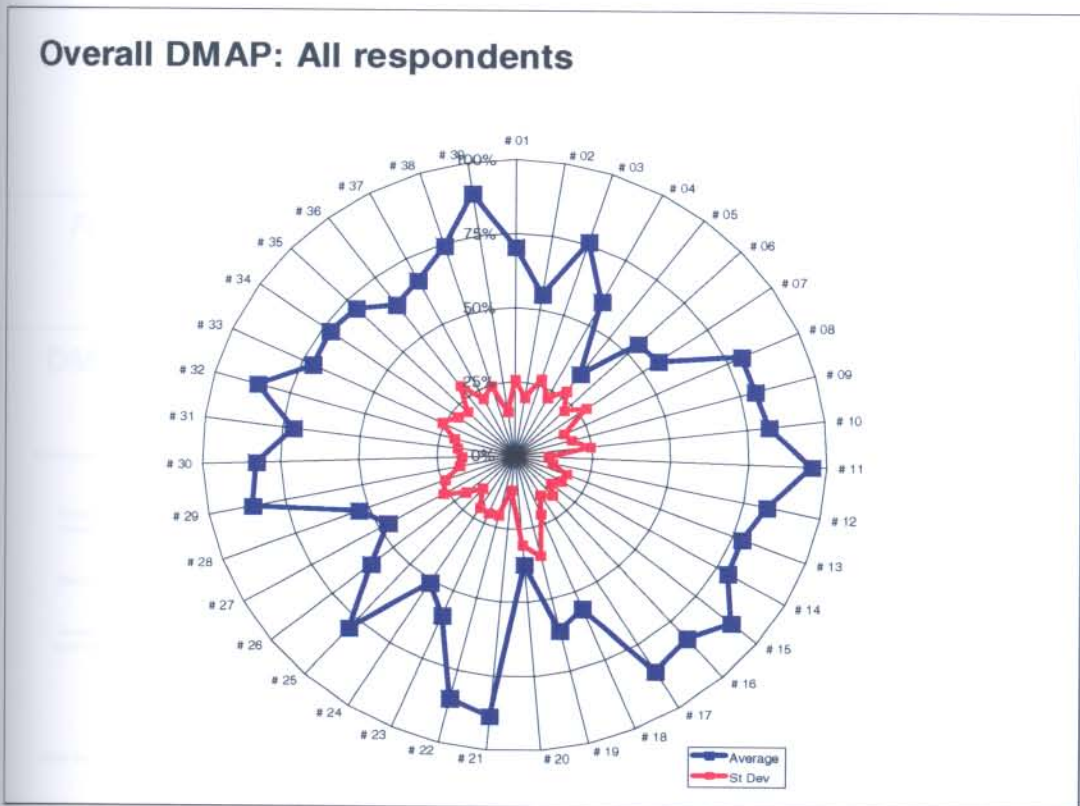


Figure B1. Overall DMAP: all respondents

DMAP by company: Companies with only 1 respondent excluded

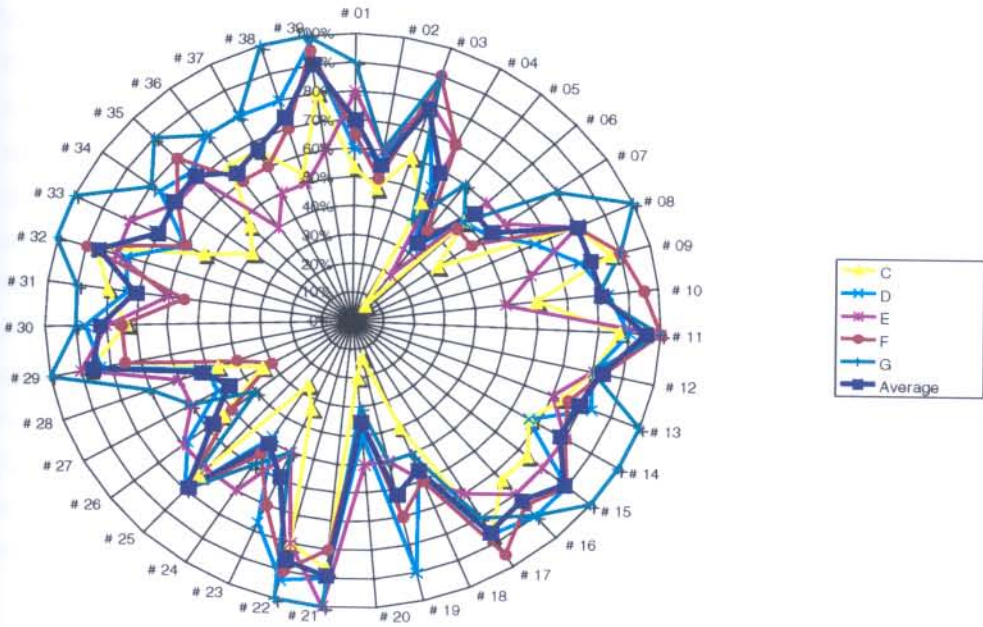


Figure B3. DMAP by company: companies with only one respondent excluded

DMAP dimensions by sector

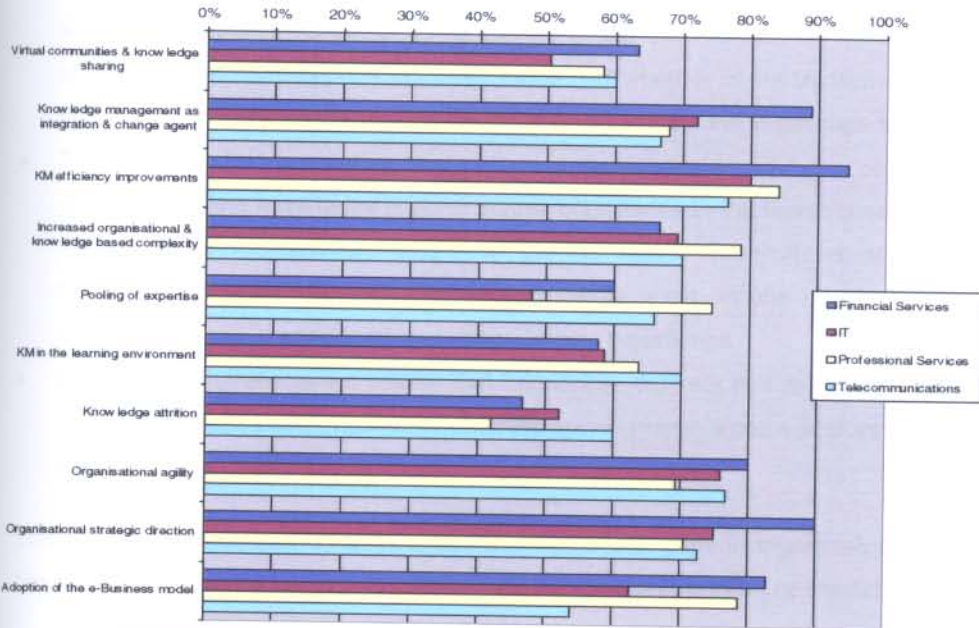


Figure B6. DMAP dimensions by sector

10.2. Findings and conclusions relating to the DMAP closed questions

The ten strategic dimensions identified prior to the design of the questionnaire, based on the hypothesis as described in Chapter 8, are:

- Virtual communities and sharing of knowledge across boundaries.
- Knowledge management as integration and change agent.
- Knowledge management efficiency improvements due to knowledge management standards.
- Knowledge management as factor that overcomes growing organisational and knowledge base complexity.
- Pooling of expertise in one central interface with internal and external parties.
- Knowledge management as creator of environment of innovation, learning and improved communication.
- Knowledge management as measure to prevent knowledge attrition.
- Knowledge management as factor that increases organisational agility.
- Knowledge management as input in determining the organisation's strategic direction.
- Knowledge management as factor in quicker adoption of the eBusiness model.

10.2.1. Virtual communities and knowledge sharing

10.2.1.1. Overview

- The average profile for questions 1-6 testing the role of virtual communities and knowledge sharing is below average. Although the respondent organisations have adopted eBusiness models to some extent, virtual communities do not currently play a large role. The conclusion is therefore made that whether in the traditional or eBusiness environment, performance relating to virtual communities and knowledge sharing is poor.
- From an industry perspective, there is some dissatisfaction on the application of virtual communities and knowledge sharing across boundaries in the financial services industry, and room for improvement exists. In the IT, Telecommunications and Professional Services industries, however, severe problems exist in the application of virtual communities and in sharing of knowledge across boundaries.
- From a staff perspective it seems that knowledge workers see the application of virtual communities and knowledge sharing across boundaries in a more positive light than other staff members.

This dimension will have an impact on all areas of the generic organisational value chain (impact indicated by all value chain areas that are shaded in grey). The impact of virtual

The role of knowledge management in eBusiness and customer relationship management

communities and knowledge sharing will thus be high on organisations as a whole (see Figure 35).

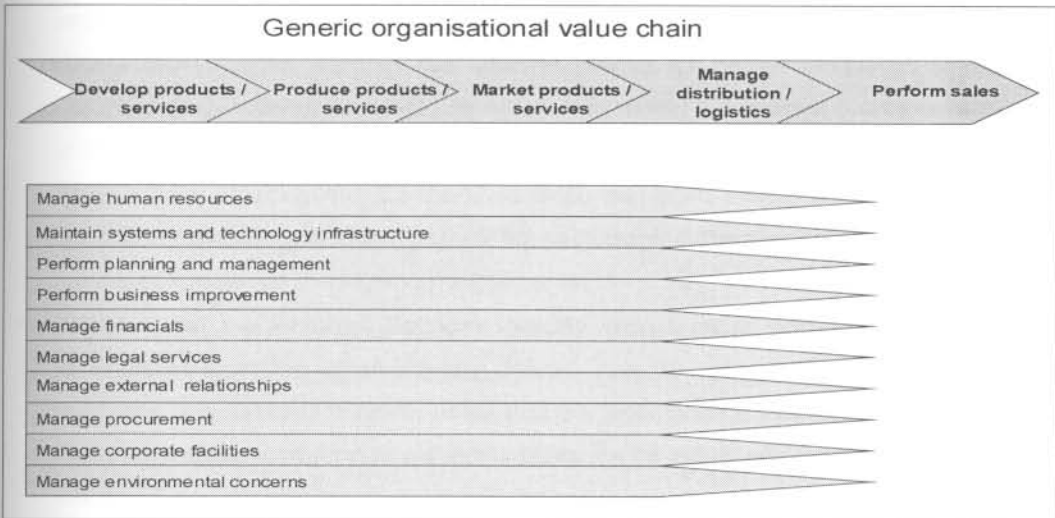


Figure 35. Areas of impact of virtual communities and knowledge sharing on generic organisational value chain

10.2.1.2. Conclusion

10.2.1.2.a. Possible influencing factors

There are a number of possible factors influencing the use of virtual communities:

- eBusiness did not explode as anticipated in the years 1998-2000. This impacted virtual communities, as not as many platforms and technologies as were anticipated to be available, are currently available and / or applied to implement the value added by virtual communities to its fullest extent. It seems, however, that extranets as virtual community or knowledge sharing platform has been received well in the South African market, indicating that knowledge management plays some role in eBusiness in South Africa.
- South Africa is not a leading country in the international scenario with reference to knowledge management. This is most probably due to the fact that there are a small number of large corporates where knowledge management can and have been fully implemented, but most organisations do not have the capacity to implement knowledge management on a large scale. This may explain why virtual communities as a platform for knowledge management ranks low in importance and current performance in the South African scenario. South African organisations also differ with reference to geographic spread. There are once again a small number of corporates that operate internationally,

The role of knowledge management in eBusiness and customer relationship management

compared with a large number of organisations, e.g. in the US or UK, that operate internationally. Most organisations therefore have a local focus, which means that the need for virtual communities may not be as great as in other countries. In South Africa another factor that could potentially influence the existence of virtual communities is the variety of languages used in the country. Having 11 official languages and some European languages spoken in South Africa, may render it a concept that is more difficult to implement compared to countries like the UK where English is the dominant language. South African organisations are therefore faced with many unique challenges relating to the country specific conditions and will not necessarily follow the American or European models of knowledge management implementations.

- The fact that the Financial Services industry scored better with reference to virtual communities than the other industry groups, may be attributed to the banking and insurance organisations in South Africa that are technologically advanced, thus enabling these organisations to provide electronic platforms for virtual communities. In contrast to this the IT industry had the lowest score, indicating severe problems. The researcher is of the opinion that the culture of IT organisations may not be oriented towards knowledge management. The fact that virtual communities and knowledge sharing ranks low in the IT industry may be due to the fact that the IT industry is not a very formal industry and due to the innovative nature of the industry and continuous change taking place in the industry, does not focus on formal ways of sharing knowledge. Knowledge may be shared mostly in on-the-job situations and in tacit format. It is therefore clear that in the South African situation, certain industries are more inclined or suited to the utilisation of virtual communities and knowledge sharing on a large scale.
- In organisations where knowledge management has been implemented, the fact that knowledge workers perceive the importance and performance of virtual communities and knowledge sharing in a better light than other staff members may be due to the fact that knowledge workers may have a better perception of the value that virtual communities and knowledge sharing may add to the business and therefore see them in a more favourable light. Knowledge workers may also have a perception that knowledge is shared to some extent, but may not have the same perception as other staff on the extent on what knowledge is *not* being shared. Knowledge workers therefore may think that a lot of knowledge is being shared, whilst it is not actually true considering all the knowledge available in the organisation that can potentially be shared. This may be dangerous with reference to the momentum required for future developments regarding virtual communities and knowledge sharing in organisations, as stagnation may develop if knowledge workers perceive effective knowledge sharing and utilisation of virtual communities, whilst in actual fact some inefficiencies still exist that are in need of improvement.

The role of knowledge management in eBusiness and customer relationship management

From the analysis and influencing factors a deduction can be made that organisations and industries that are technologically enhanced and have adapted the eBusiness model are more prone to sharing knowledge effectively and to utilise virtual communities as a knowledge sharing platform, due to the availability of enabling technologies in these organisations and industries.

In the light of influencing factors in the South African context, it is clear that most South African organisations do not have the need for implementing virtual communities mainly due to their limited size and limited geographical spread, but also due to other complexities such as language differences and availability of suitable knowledge management technology.

10.2.1.2.b. Impact on organisations

The impact of virtual communities and knowledge sharing is organisation wide, on all core processes and enabling processes (see Figure 35). This therefore implies that the impact of poor performance with reference to virtual communities and knowledge sharing will be huge in any organisation.

When knowledge sharing is poor within core processes in a business, the very heart of the business is affected. Those core processes without which the business would have no reason for existence, is negatively impacted due to the fact that knowledge sharing around tasks and decision-making within each core process, is ineffective or does not take place at all. This leads to inefficiency and ineffectiveness in the organisation's core processes.

Firstly it affects the organisation on a strategic level in terms of the ability to execute the business strategy, as core processes are intended to execute the business strategy. It also affects the organisation's agility in the market, i.e. the ability to react swiftly to changes in the marketplace due to the fact that decisions on core activities in the business are being made without all the knowledge being available to make an informed decision. Strategy execution and adapting to the marketplace is therefore slowed down due to lack of knowledge sharing, and the effectiveness and efficiency of both are negatively impacted. Secondly it affects the organisation on an operational level due to the fact that productivity in producing products and services is negatively impacted due to inefficient and ineffective task execution. Due to a lack of knowledge sharing on the "shop floor", there may also be a lack of knowledge to innovate, stagnating the processes of the organisation on an operational level and negatively affecting the competitiveness of the organisation in the marketplace.

When knowledge sharing is poor within enabling processes the scenario above with reference to core processes is exacerbated, as enabling processes are meant to provide support in order to enable core processes to take place effectively and efficiently. For example, when

The role of knowledge management in eBusiness and customer relationship management

knowledge is not shared on managing human resources, the organisation will not be able to effectively manage its workforce. Creating and managing an efficient and effective workforce through creation of a productive and stimulating working environment and a culture of openness and innovation, is essential for the sharing of knowledge within both core and enabling processes, tasks and decisions, and the organisation would thus be impacted negatively on both a strategic and operational level if the workforce is not managed effectively through the use of available knowledge in the organisation. The same principle would apply to all other enabling processes.

It is therefore clear that a lack of knowledge sharing and implementation of virtual communities will heavily impact both core and enabling processes in the business, thereby negatively impacting the organisation on both a strategic and operational level.

10.2.1.3. Issues: virtual communities and knowledge sharing

- *Issue 1: Knowledge management has a vital role in the retention and structuring of knowledge shared in virtual communities / collaborative forums (Q2 & Q3)*
 - The average profile for question 2 that addresses this issue is low (<60%), indicating severe problems in the general respondent profile. There is not a significant differentiation amongst respondent organisations, indicating that this problem is generic to the market sample as tested in this questionnaire. The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 2: Knowledge management can ensure the transfer of tacit knowledge to explicit knowledge within collaborative forums / virtual communities (Q27)*
 - The average profile for question 27 that addresses the conversion of tacit knowledge to explicit knowledge in general, i.e. in any forum (including collaborative forums / virtual communities), is low (<50%), indicating severe problems in the general respondent profile.
 - 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 quite extensively.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.

The role of knowledge management in eBusiness and customer relationship management

- *Issue 3: Knowledge management provides tools and platforms for virtual communities / knowledge sharing (Q4)*
 - The generic respondent profile indicates that respondents are not entirely satisfied with the tools and platforms provided by knowledge management for virtual communities and knowledge sharing. The generic profile score was below 65%.
 - There is a major difference in perception on the extent to which knowledge management provides virtual communities / knowledge sharing platforms and / or tools amongst knowledge workers and other staff. 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 that scored much lower.
- *Issue 4: Knowledge management ensures management of website content (Q5)*
 - The generic respondent profile indicates severe problems with reference to the knowledge management function's role in management of organisational website content with an average score of 30%.
 - The high standard deviation, however, shows some disagreement amongst respondents. Respondent Organisation C (IT) does not involve knowledge management at all in the structuring of its company website. The other respondents involve the knowledge management function to some extent, but not sufficiently.
 - 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.
- *Issue 5: Virtual communities / collaboration leads to efficiency and productivity improvements due to sharing of knowledge (Q6)*
 - The average of the respondent profile is low (<60%), indicating severe problems in respondent organisations in obtaining efficiency and productivity improvements through virtual communities and / or collaboration.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly, although knowledge workers perceive the efficiency and productivity improvements to be slightly higher than other staff members.
- *Issue 6: Virtual communities, with specific reference to extranets, play a larger role in the eBusiness arena in terms of sharing knowledge with customers / suppliers (Q1)*
 - Utilisation of extranets in view of sharing knowledge with customers / suppliers received a high score on the average respondent profile (70%), indicating general satisfaction amongst respondents.
 - Responses were 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

The role of knowledge management in eBusiness and customer relationship management

- of importance to all organisations to share knowledge with customers and suppliers via extranets, differs vastly.
- The perceptions of knowledge workers and other workers on this issue do not differ significantly.

10.2.1.4. Conclusions

10.2.1.4.a. Possible influencing factors

- *Issue 1: Knowledge management has a vital role in the retention and structuring of knowledge shared in virtual communities / collaborative forums (Q2 & Q3).*
 - The researcher believes that due to the fact that the application of virtual communities and knowledge sharing currently scores below average, firstly not a lot of knowledge is generated in this environment, and therefore the retention and structuring of the knowledge generated in this environment does not receive priority importance from management. Therefore the deduction can be made that no or limited responsibility has been given to retention and structuring of knowledge shared in virtual communities in these organisations. This may all be attributed to the lack of perceived importance of the knowledge generated in virtual communities and due to the lack of utilisation thereof. Knowledge may also not be perceived as a corporate asset and managed as such to ensure maximum value extraction.
- *Issue 2: Knowledge management can ensure the transfer of tacit knowledge to explicit knowledge within collaborative forums / virtual communities (Q27)*
 - The low average score on this issue may be attributed to the fact that, as stated in the previous issue, knowledge in virtual communities are not currently structured to a large extent, indicating that the role of knowledge management is low. It may also be attributed to the fact that virtual communities are not widely used as a means of knowledge sharing, therefore conversion is not a big issue. It may also be due to the fact that knowledge management in these organisations are focused on managing knowledge that is currently already in explicit format, and are therefore not focusing on tacit knowledge or on conversion of this tacit knowledge into explicit.
- *Issue 3: Knowledge management provides tools and platforms for virtual communities / knowledge sharing (Q4)*
 - The dissatisfaction with the extent to which knowledge management provides tools and platforms for knowledge sharing may be attributed to the fact that a lot of knowledge sharing is currently taking place in tacit format and is not shared via formalised tools and platforms. It may also be attributed to a lack of funding

The role of knowledge management in eBusiness and customer relationship management

obtained by the knowledge management function to provide adequate tools or platforms for users. Lastly it may be attributed to a lack of knowledge management skills, knowledge and leadership to enable successful selection and implementation of such tools.

- The difference in perception of knowledge workers and other staff on this issue may be attributed to a lack of knowledge of other staff on the functionality of the tools and platforms provided, and/or lack of understanding of how these tools support knowledge sharing (this indirectly implies a lack of training on tools and platforms, as well as the philosophy of knowledge management and how these tools assist in implementing that philosophy). It may also be attributed to the fact that knowledge workers do not fully understand the needs of other staff with reference to knowledge sharing behaviour and the relevant tools and platforms they require in supporting that behaviour.

- *Issue 4: Knowledge management ensures management of website content (Q5)*

- The indication from respondents that knowledge management plays virtually no role in structuring website content may be attributed to the fact that website structuring, building and maintenance is usually seen as an IT and Marketing function. It is not deemed as an area where knowledge management could provide useful inputs. This may be due to the fact that knowledge management is being defined in a very limited way by the respondent organisations, and they have yet to realise that knowledge management is integrated with the whole of the business.
- The difference of the perceptions between knowledge workers and other staff may be attributed to the fact that other staff are not fully aware of all the activities that knowledge workers are involved in, i.e. the roles of knowledge workers are not clearly communicated to other staff. It may also be attributed to the fact that other staff involved in managing website content may not deem knowledge workers' roles as significant.

- *Issue 5: Virtual communities / collaboration leads to efficiency and productivity improvements due to sharing of knowledge (Q6)*

- The very low score on this dimension may be attributed to the fact that knowledge management does not play a part in structuring of the knowledge shared within virtual communities, and tacit knowledge in these forums are also not converted to explicit knowledge. The subsequent utilisation and application of knowledge shared in these forums are therefore quite difficult as the knowledge is not structured and often in tacit format, thus inhibiting efficiency and productivity improvements. It may also be attributed to the fact that virtual communities are not widely used.

The role of knowledge management in eBusiness and customer relationship management

- The fact that knowledge workers perceive the efficiency and productivity improvements achieved through sharing knowledge in virtual communities to be higher than other staff, may be attributed to the fact that other staff members may not link the role of knowledge to their productivity or efficiency improvements, but may link it to "working smarter".
- *Issue 6: Virtual communities, with specific reference to extranets, play a larger role in the eBusiness arena in terms of sharing knowledge with customers / suppliers (Q1)*
 - The fact that using extranets as a virtual community platform for sharing knowledge with customers and / or suppliers, was ranked high by respondents may be attributed to the fact that the respondent organisations are large corporates with critical mass to enable them to implement such a platform successfully. It may also be attributed to the fact that these organisations are technologically advanced and due to their geographical dispersion and relatively large size, have decided to implement some eBusiness principles, of which extranets are an example. These organisations are seeking to ensure supply chain efficiency with customers and suppliers through the sharing of knowledge.

10.2.1.4.b. Impact on organisations

- *Issue 1: Knowledge management has a vital role in the retention and structuring of knowledge shared in virtual communities / collaborative forums (Q2 & Q3).*
 - The low average score for this issue can impact the organisation negatively. Knowledge shared in virtual communities that are not retained and/or structured in some form may not be available for reuse in other contexts at other points in time. This means that the knowledge shared may only be retrievable and of value in a specific context for a specific purpose. This limits the potential value of knowledge and knowledge management for the organisation, as the value of knowledge is that it can be reused infinitely and the value changes dependent on the context.
- *Issue 2: Knowledge management can ensure the transfer of tacit knowledge to explicit knowledge within collaborative forums / virtual communities (Q27)*
 - The low average profile for this issue means that the organisations may never have a clear understanding of what knowledge is available as most knowledge will be in tacit format. They also run the risk of knowledge attrition when staff leaves the organisation and their knowledge and experience haven't been made explicit in some format.

The role of knowledge management in eBusiness and customer relationship management

- *Issue 3: Knowledge management provides tools and platforms for virtual communities / knowledge sharing (Q4)*
 - The fact that tools and platforms for knowledge sharing as provided by knowledge management is inadequate negatively impacts knowledge sharing and explicit knowledge management efficiency and effectiveness in respondent organisations. It also lowers the profile and therefore the perceived importance of knowledge management in the organisation.
- *Issue 4: Knowledge management ensures management of website content (Q5)*
 - The severe problems with reference to the role of knowledge management in structuring website content means that the potential exists for organisations' websites not being as effectively structured and defined as it could be with the input of knowledge workers, who are experts in the structuring of content. This is important for any organisation to realise, as a website is the image and knowledge that it portrays to the market and should be structured as effectively as possible.
- *Issue 5: Virtual communities / collaboration leads to efficiency and productivity improvements due to sharing of knowledge (Q6)*
 - The limited efficiency and productivity improvements due to knowledge sharing in virtual communities means that organisations are not going to get the full potential value of knowledge as an organisational asset, together with the value of knowledge applied to processes and tasks yielding customer facing products and/or services. The implication is also that knowledge is not being managed as a corporate asset at this point in time.
- *Issue 6: Virtual communities, with specific reference to extranets, play a larger role in the eBusiness arena in terms of sharing knowledge with customers / suppliers (Q1)*
 - The prevalent use of extranets has a potentially high impact on knowledge sharing in the eBusiness and customer relationship management environments. The responses indicate that organisations understand the value of knowledge sharing with customers and suppliers in achieving organisational agility, effectiveness and efficiency and are exploiting this value within the context of their eBusiness and customer relationship management models. Knowledge sharing through utilisation of technologically integrated platforms is a fundamental principle of eBusiness, and to a certain extent of customer relationship management and it is clear that these organisations have grasped this principle and have put great impetus in implementing it successfully.

The role of knowledge management in eBusiness and customer relationship management

10.2.2. Knowledge management as integration and change agent

10.2.2.1. Overview

There are a number of possible factors influencing the use of knowledge management as change and integration 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 Organisation D (Professional Services) had the lowest score, whilst Respondent Organisation G (Insurance) had the highest score.
- The average profile for questions 7-9 testing the role of knowledge management as integration and change agent is above average. Question 7 had a low score indicating severe problems with reference to knowledge management facilitating an easier transition when organisational changes are made, but questions 8 and 9 relating to the role of knowledge management in facilitating integration with eBusiness partners and facilitating transparency in the organisation ranked above 75%, indicating a high level of satisfaction.
- From an industry perspective, there is a high level of satisfaction on the application of knowledge management as integration and change agent in the Financial Services industry. In the IT, Telecommunications and Professional Services industries, however, some dissatisfaction exists in the application of knowledge management as integration and change agent.
- From a staff perspective it seems that knowledge workers and other staff members do not see eye to eye on the role of knowledge management as integration and change agent.
 - The role of knowledge management in facilitating easier transition when organisational changes are made is perceived to be 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 greater than other staff do (Q8).
 - Other staff perceives the role of knowledge management in facilitating transparency in the organisation to be greater than knowledge workers do (Q9).

The role of knowledge management in eBusiness and customer relationship management

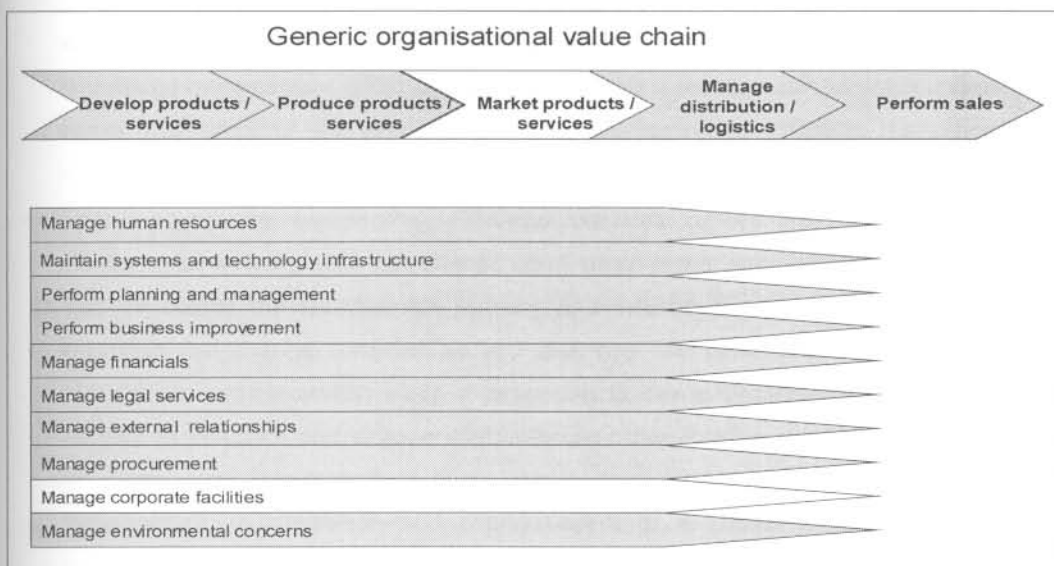


Figure 36. Areas of impact of knowledge management as integration and change agent on organisational value chain

10.2.2.2. Conclusions

10.2.2.2.a. Possible influencing factors

There are a number of possible factors influencing the use of knowledge management as integration and change agent:

- The fact that the overall rating on knowledge management as integration and change agent is high, read in conjunction with the above dimension on knowledge sharing having received a low score, means that when knowledge is shared, it has a high impact with specific reference to change and business integration. This may be due to the fact that the knowledge sharing that does take place, is focused on sharing critical knowledge that has a potentially high impact on the business and may assist in integrating the process flow within the organisation and between organisations, and in changing strategic and operational inefficiencies. The implication is that knowledge that has a potential high impact for the business is currently being shared by the respondent organisations. This is a strength that organisations should build on, and the size of this pool of knowledge perceived as having potential for high impact should be increased, together with improvement of the knowledge sharing processes, to ensure higher value extraction and efficiency from the organisational knowledge base as a whole.
- Question 7 had a low score indicating severe problems with reference to knowledge management facilitating an easier transition when organisational changes are made. This may indicate a perception that knowledge management is playing a role in provision of the knowledge and conveying the message of the potential changes, but that knowledge management per se does not have an effect in the actual implementation of the changes

The role of knowledge management in eBusiness and customer relationship management

with reference to facilitating easier change implementation. The implication is that knowledge management could also be promoted as a tool that can assist in ensuring an easier facilitation of the implementation of the proposed changes, i.e. knowledge management should not be seen only as a communication tool.

- From an industry perspective, Financial Services ranked the role of knowledge management as integration and change agent much higher than the other industries. This may be due to the fact that the banking and insurance industries are very dynamic industries that change continuously and at a very fast pace, and due to the fact that competition and innovation plays a large role in this environment. The need for this industry to integrate and change effectively may therefore be greater than in the other industries, and therefore they have already optimised the utilisation of knowledge management as integration and change agent to a greater extent than the other industries. The fact that Telecommunications ranked the lowest on this dimension may be attributed to the fact that cellular phone companies are relative newcomers to the marketplace and therefore haven't necessarily gone through a lot of change and integration efforts. The implication of this is that some industries are, due to the nature of their business, more oriented to using knowledge management as a change and integration tool. It does not, however, discount the fact that organisations or industries that by nature are not inclined to use knowledge management as integration and change agent, can follow the example of those industries and organisations that have implemented it effectively.
- From a staff perspective it seems that knowledge workers and other staff members do not see eye to eye on the role of knowledge management as integration and change agent. The role of knowledge management in facilitating an easier transition when organisational changes are made and the role of knowledge management in facilitating transparency in the organisation are perceived to be greater by other staff than knowledge workers themselves. This may be due to the fact that knowledge workers' involvement in core and enabling processes are limited, thus limiting their view on the impact that knowledge management has as integration and change agent on the organisation as a whole. Knowledge workers perceive the role of knowledge management in facilitating integration between eBusiness partners through knowledge management practices to be greater than other staff does. This may be due to the fact that knowledge workers may be more directly involved with the use of knowledge as integration tool on operational level between eBusiness partners and therefore have a clearer understanding of the impact thereof on the organisations than other staff, which may not have such a direct operational involvement in this area. The implication is therefore that knowledge managers should become more involved in the details of day-to-day business to ensure that they can accurately evaluate the impact that knowledge management can have as integration and change agent. The same applies for other staff. They should be more

The role of knowledge management in eBusiness and customer relationship management

aware of the role of knowledge management in acting as integration and change agent between eBusiness partners to ensure that knowledge management can be utilised to its maximum potential in this regard.

10.2.2.2.b. Impact on organisations

The impact of knowledge management as integration and change agent is high, impacting the majority of the core processes and the majority of the enabling processes in the value chain (refer Figure 36).

On a strategic level, the impact of the high score of knowledge management as integration and change agent indicates that these organisations can maintain a high level of agility through quick and effective integration of changes to the business as reaction to changes in the marketplace. It also shows that these organisations can effectively change strategic direction through facilitation of reasonably quick acceptance of changes by staff and other stakeholders and implementing these changes quickly, thus achieving effective integration and ensuring competitive advantage. All change management processes in these organisations are greatly enhanced through knowledge sharing and knowledge management.

On an operational level, the impact of the organisations' high score on the utilisation of knowledge management as integration and change agent is visible in swift and effective operational changes (necessitated by changes in the marketplace, innovation, inefficient operations, etc.) that can be made to ensure efficiency and effectiveness of both the core and enabling processes of the organisation.

Organisations that have a good capability with reference to utilising knowledge management as integration and change agent, will therefore be positively impacted on both strategic and operational level through achieving efficiency and effectiveness in both core and enabling processes through implementation of change and integration of, amongst others, business process, technology and people practices.

10.2.2.3. Issues: Knowledge management as integration and change agent

- *Issue 1: Knowledge management facilitates integration inter- and intra-organisation (Q7, Q8, Q9)*
 - The average profile for questions 7-9 testing the role of knowledge management as integration and change agent is above average. Question 7 had a low score indicating severe problems with reference to knowledge management facilitating an easier transition when organisational changes are made, but questions 8 and

The role of knowledge management in eBusiness and customer relationship management

9 relating to the role of knowledge management in facilitating integration with eBusiness partners and facilitating transparency in the organisation ranked above 75%, indicating a high level of satisfaction.

- *Issue 2: Knowledge management provides transparency in the organisation (Q9)*
 - Most organisations show a high level of satisfaction on the role of knowledge management in providing transparency in the organisation.
 - Respondent Organisation E (Telecommunications organisation) attaches a much lower importance rating (60%) to the facilitation of transparency in the organisation through knowledge management than the other respondent organisations. The other respondent organisations have a high level of satisfaction on the facilitation of transparency provided through knowledge management.
 - Other staff perceives the role of knowledge management in facilitating transparency in the organisation to be greater than knowledge workers do.
- *Issue 3: Knowledge management is embedded in day to day work (Q18)*
 - All respondent organisations showed severe problems in embedding knowledge management into the day-to-day work of their staff members. The problem is particularly severe in Respondent Organisation C (IT).
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 4: Knowledge management institutionalises customer relationship management (Q1, Q14, 15, 21)*
 - The average total score for these four questions is above 65%, indicating satisfaction on the role of knowledge in the institutionalising of customer relationship management (with reference to facilitating integration through the use of extranets to share knowledge with customers / suppliers, knowledge management leading to improved service delivery, the availability of knowledge leading to improved customer relationships, and the importance of having one view of the customer).
 - The only scores showing dissatisfaction are found in Question 1 relating to the use of extranets to facilitate integration with customers and suppliers, where Respondent Organisations C (IT) and D (Professional Services) scored below 60%.
 - Respondent Organisation perceptions differed in some questions:
 - ~ 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

The role of knowledge management in eBusiness and customer relationship management

organisations to share knowledge with customers and suppliers via extranets, differs vastly (Q1).

- ~ 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).
- The perceptions of knowledge workers and other workers on this issue do not differ significantly.

10.2.2.4. Conclusions

10.2.2.4.a. Possible influencing factors

- *Issue 1: Knowledge management facilitates integration inter-and intra-organisation (Q7, Q8, Q9)*
 - The high score for the role of knowledge management in facilitating integration with eBusiness partners and facilitating greater transparency may be attributed to the fact that most of the respondent organisations are knowledge intensive organisations that may find a lot of value in implementing eBusiness as business model. These organisations would have a better understanding of the potential value of knowledge and knowledge management than organisations that are not knowledge intensive, and they would therefore also have a better understanding of the potential impact of knowledge sharing between eBusiness partners and the integration it may bring about due to knowledge sharing. This is supported by the fact that these organisations had a highly satisfactory response with reference to the utilisation of extranets for sharing knowledge with customers / suppliers.
 - The low score with reference to knowledge management facilitating an easier transition when organisational changes are made may be attributed to the perception that knowledge management is playing a role in provision of the knowledge and conveying the message of the potential changes, but that knowledge management per se does not have an effect in the actual implementation of the changes with reference to facilitating easier change implementation.
- *Issue 2: Knowledge management provides transparency in the organisation (Q9)*
 - The high score for the role of knowledge management in the facilitation of transparency in the organisation may be attributed to the respondent organisations using knowledge sharing platforms such as intranets as

The role of knowledge management in eBusiness and customer relationship management

communication platforms to enable transparency through explicit presentation of organisational processes and practices.

- The fact that the role of knowledge management in facilitating transparency in the organisation is perceived to be greater by other staff than knowledge workers themselves, may be due to the fact that knowledge workers' involvement in core and enabling processes are limited, thus limiting their view on the impact that knowledge management has as integration and change agent on the organisation as a whole.
- *Issue 3: Knowledge management is embedded into day-to-day work (Q18)*
 - The fact that knowledge management is not embedded in to the day-to-day work of staff may be attributed to the fact that knowledge management is not perceived as being integrated with the business, but rather as an administrative or support function. Organisations do not yet perceive knowledge as adding value to day-to-day activities. It may also be due to the lack of formal tools and platforms provided to enable integrating knowledge management with staff's day-to-day activities, and due to a lack of explicit guidelines of how to apply knowledge management as a business philosophy.
- *Issue 4: Knowledge management institutionalizes customer relationship management (Q1, Q14, Q15, Q21)*
 - The high average score for the role of knowledge management in institutionalizing customer relationship management may be attributed to the fact that these organisations have to some extent adapted an eBusiness model where customer relationship management is essential. It is also clear from the high score relating to utilisation of extranets to share knowledge with customers / suppliers, that creation of knowledge sharing platforms relating to customer knowledge is important in these organisations. As stated previously, the respondent organisations seem to be knowledge intensive organisations and may therefore have a propensity towards utilizing knowledge to improve their organisational efficiency and effectiveness in general, but also specifically to improve customer relationships.

10.2.2.4.b. Impact on organisations

- *Issue 1: Knowledge management facilitates integration inter-and intra-organisation (Q7, Q8, Q9)*
 - The average score on this issue indicates that the respondent organisations are achieving some integration within their organisations and with customers and suppliers through knowledge management. Integration through knowledge management may have a significant impact through more focused business

The role of knowledge management in eBusiness and customer relationship management

operations internally and externally. It will impact customer and supplier facing processes within the value chain (core and enabling processes) through the management of knowledge within these processes.

- *Issue 2: Knowledge management provides transparency in the organisation (Q9)*
 - The respondent organisations have identified knowledge management as a communication, knowledge sharing and change management tool in their organisations. This will have a positive impact as these organisations will have a greater ability to adapt to changes in a positive and efficient way.
- *Issue 3: Knowledge management is embedded into day-to-day work (Q18)*
 - The impact of not embedding knowledge management in staff's day-to-day activities for the respondent organisations is huge. The implication is that these organisations have yet to grasp that knowledge pervades the whole business process value chain of an organisation and processes cannot be implemented without associated knowledge. It implies that these organisations are attempting to manage knowledge separately and not as an integral part of processes. Knowledge management will never be implemented successfully without an integrated approach and will never receive buy-in on top management level for this reason.
- *Issue 4: Knowledge management institutionalizes customer relationship management (Q1, Q14, Q15, Q21)*
 - The fact that the respondent organisations are satisfied with the role that knowledge management currently plays in institutionalizing customer relationship management indicates that knowledge management is recognized as a critical component of customer relationship management. These organisations are proactively building on their knowledge base and extracting value from knowledge as a corporate asset and utilising it in order to improve customer relationships and product and service delivery. This impacts the organisations positively as it puts them ahead of those competitors that have not yet realized the value of knowledge in building customer relationships and thus improving product and service delivery.

10.2.3. Knowledge management efficiency improvements due to knowledge management standards

10.2.3.1. Overview

- 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

The role of knowledge management in eBusiness and customer relationship management

efficiency improvements. 1 Respondent Organisation scored between 65% and 75%, indicating some satisfaction with knowledge management efficiency improvements.

- Financial Services had the highest score in this dimension, followed by Professional Services, IT and Telecommunications. All of the industries indicated a high level of satisfaction with efficiency improvements achieved through knowledge management.
- The perceptions of knowledge workers and other workers do not differ significantly, except on the issue of 24-hour access to knowledge. Knowledge workers perceive 24-hour access to knowledge as more important than other staff does.

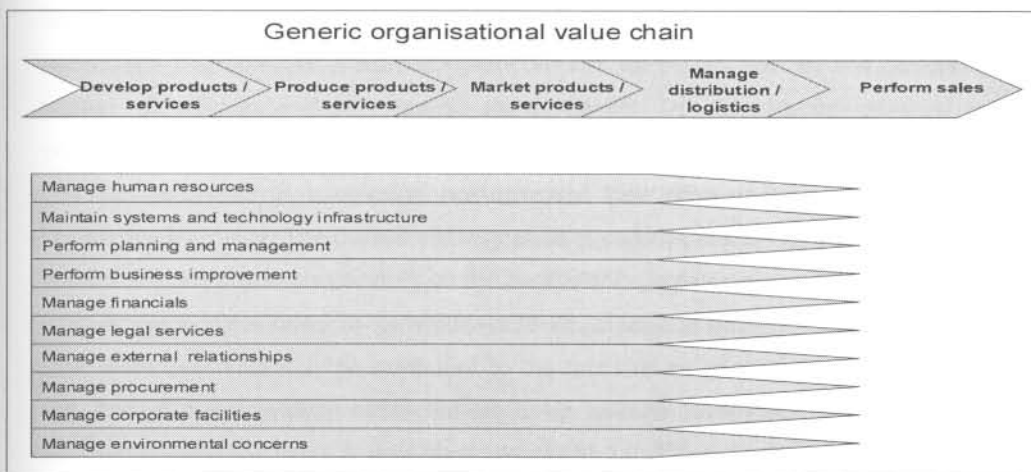


Figure 37. Areas of impact of knowledge management efficiency improvements on generic organisational value chain

10.2.3.2. Conclusion

10.2.3.2.a Possible influencing factors

There are a number of possible factors influencing the efficiency improvements obtained through knowledge management:

- The fact that the average score for achieving efficiency improvements through knowledge management is high, may be indicative of the fact that advances in technology in the last couple of years provides easier, quicker and more effective access to higher quality knowledge than before. The fact that knowledge is more readily available, makes it easier for people to utilise knowledge to improve their efficiency, effectiveness and therefore productivity in day-to-day activities. Collective improvement in efficiency, effectiveness and productivity therefore has a positive impact on these organisations. Knowledge management efficiency improvements are also measurable to some extent and, once implemented, are easy to monitor and track, hence the successful implementation to date. The successful implementation may also be attributed to the fact that efficiency

The role of knowledge management in eBusiness and customer relationship management

improvements can be achieved by implementing knowledge management in phases without a “big bang” approach, thus enabling the organisations to stagger the cost and making the cost factor for organisations more acceptable.

- The Financial Services industry ranked efficiency improvements higher than other industries by a great margin. This may be due to the fact that Financial Services organisations are usually knowledge intensive organisations, more so than e.g. organisations in the IT industry, and therefore knowledge management efficiency improvements would have a larger day-to-day impact. The Telecommunication industry ranked lowest on this dimension. This may be due to the fact that cellular phone companies are relative newcomers to the market and were more efficient in terms of knowledge management practices right from the start, thus making the possibility and impact of efficiency improvements much lower. The implication of this is that organisations in knowledge intensive industries may achieve greater efficiency improvements due to knowledge management than other industries that are not so knowledge intensive. The duration of existence of an organisation may also determine the impact of efficiency improvements on the particular organisation.
- Knowledge workers rated 24-hour access to knowledge of greater importance than other staff members. This may be attributed to the fact that other staff members' perceptions are based on individual cases where they utilised knowledge after hours, whilst knowledge workers have a collective perception of all individual cases where 24-hour access to knowledge had a high impact on the business, i.e. the knowledge workers' perceptions of the value added in cases where access to knowledge on a 24-hours or after hours basis, is more collective than those of other staff members. The implication is that knowledge workers' perceptions on the value of 24-hour access have to be utilised by organisations to maximize value added by knowledge management to the organisation. The value that 24-hour access to knowledge can add has to be communicated to other staff members to ensure maximum value extraction from this service.

10.2.3.2.b. Impact on organisations

Efficiency improvements resulting from knowledge management has a high impact on the organisation as a whole, as it affects all of the core as well as enabling processes (see Figure 37). On a strategic level the organisation is impacted twofold.

Firstly, efficiency improvements through knowledge management standards lead to organisations having a more consolidated view of the customer throughout all core and selected enabling processes by providing standardised knowledge on customers. This can be strategically beneficial to the organisation, as it provides a better understanding of the needs

The role of knowledge management in eBusiness and customer relationship management

of the current market that the organisation serves, and may allow some insight into customer segmentation. It may also lead to more efficient customer facing processes and improved customer relationship management, in conjunction with improved strategy formulation according to market and customer needs. Secondly, without efficient core processes, the execution of the business strategy will be negatively affected. The efficiency improvements through knowledge management in the core processes therefore support the execution of the business strategy in an indirect way.

The impact of efficiency improvements is more clearly seen on an operational level, where efficiency is achieved through knowledge management via the prevention of duplication of work, time saving that leads to increased productivity, as well as quick, easy and direct access to knowledge. Efficiency improvements are also achieved through a greater understanding of staff on the flow of knowledge in the organisation, the role of knowledge and knowledge management in business processes, and the impact the flow of knowledge has on the efficiency of the value chain of the organisation.

10.2.3.3. Issues: Knowledge management efficiency improvements due to knowledge management standards

- *Issue 1: Knowledge management provides a single point of entry to the knowledge base (Q19)*
 - 2 Of the Respondent Organisations scored above 65% indicating satisfaction relating to the role of knowledge management in achieving efficiency improvements. 3 Of the Respondent Organisations scored below 60%, indicating severe problems in this area. Respondent Organisation C (IT) scored 12%, indicating extremely severe problems in this area that may only be solved through change management interventions.
 - 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). 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 does.
- *Issue 2: Knowledge management provides 24-hour access to knowledge (Q10)*
 - The average score relating to 24-hour access to knowledge is above average (>75%) with satisfaction amongst respondent organisations.
 - 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

The role of knowledge management in eBusiness and customer relationship management

signifies that the perception relating to 24-hour access to knowledge differs vastly amongst respondents.

- Knowledge workers perceive 24-hour access to knowledge as more important than other staff does.
- *Issue 3: Knowledge management prevents duplication and encourages reuse of knowledge in different contexts (Q11, Q12)*
 - The average score relating to knowledge management preventing duplication of work and enabling the reuse of knowledge in different contexts is above average, indicating a high level of satisfaction amongst respondents (>75%). The standard deviations of the respondents relating to these two questions are low, indicating consensus.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly on the importance of knowledge management in preventing duplication of work, or on the extent to which knowledge management enables the reuse of knowledge in various contexts.
- *Issue 4: Knowledge management provides navigation ability, making searches easier (Q13)*
 - The average score relating to knowledge management and related activities minimises time searching for knowledge, is above average (>75%).
 - Respondent Organisation G (Insurance) ranks higher compared to the other respondents in the extent to which knowledge management and related activities minimises time spent for knowledge.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 5: Standardised customer knowledge leads to better customer service through having one view of the customer (Q21)*
 - An extremely high level of agreement exists amongst respondents on the importance of having one view of the customer (>75%).
 - Respondent Organisation G (Insurance) ranks higher compared to the other respondents in the importance of having one view of the customer.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 6: Knowledge management provides an understanding of the flow of knowledge (Q17)*
 - A high level of consensus exists amongst respondents on the importance of knowledge management in enabling cross-divisional flow of knowledge (>75%).
 - Respondents differ to a large extent on the extent to which knowledge management enables cross-divisional knowledge flow, with scores ranging from

The role of knowledge management in eBusiness and customer relationship management

70% (Respondent E – Telecommunications) to 96% (Respondent F – Professional Services).

- The perceptions of knowledge workers and other workers on this issue do not differ significantly.

10.2.3.4. Conclusions

10.2.3.4.a. Possible influencing factors

- *Issue 1: Knowledge management provides a single point of entry to the knowledge base (Q19)*
 - The low average score for the role of knowledge management in providing a single point of entry may be attributed to the fact that knowledge management may be fragmented in the respondent organisations, i.e. it may not have been implemented across the organisation. It may also be attributed to the fact that the knowledge management system does not provide comprehensive coverage of all knowledge sources, but only those deemed to be of critical importance to users, or those that are used a lot. It may also be attributed to the fact that a lot of knowledge is still in tacit format, i.e. when staff retrieves knowledge they have to use both tacit and explicit sources of knowledge.
 - The fact that knowledge workers perceive the provision of a single point of entry as higher than other staff may be attributed to the fact that knowledge workers may not be aware of all knowledge sources in the organisation. This is true of explicit sources, but especially of tacit knowledge sources.
- *Issue 2: Knowledge management provides 24-hour access to knowledge (Q10)*
 - The above average score for the knowledge management providing 24-hour access to knowledge may be attributed to the fact that the largest part of the organisations' knowledge bases are focused on technology based systems, which are linked to telephone lines and can therefore be accessed via the Internet, intranets and other dial-up functionalities.
- *Issue 3: Knowledge management prevents duplication and encourages reuse of knowledge in different contexts (Q11, Q12)*
 - The above average score for knowledge management preventing duplication and encouraging reuse of knowledge in different contexts may be attributed to the fact that most organisations introducing knowledge management focus on making knowledge available that can be reused in order to create efficiency and productivity increases. They then proceed to more sophisticated means of knowledge sharing, e.g. virtual communities, communities of practice, etc. This above average score may therefore be attributed to the fact that this is potentially

The role of knowledge management in eBusiness and customer relationship management

the focus of the knowledge management programmes of the respondent organisations.

- *Issue 4: Knowledge management provides navigation ability, making searches easier (Q13)*
 - The above average score for this issue may be attributed to technology based knowledge management systems in the respondent organisations that allow sophisticated searches for knowledge by using keywords, Boolean operators, fuzzy logic, taxonomies and other tools and techniques to retrieve knowledge. It is therefore possible to search and navigate the knowledge base in other ways than via the traditional hierarchical searching.
- *Issue 5: Standardised customer knowledge leads to better customer service through having one view of the customer (Q21)*
 - The importance of having one view of the customer through provision and sharing of standardized knowledge may be attributed to the fact that the respondent organisations are all large corporates with many different divisions internally, and these organisations are all geographically spread, some locally and some internationally as well. This means that they interface with customers in a variety of organisational departments and geographical locations and therefore have a need to consolidate the knowledge gained at different points of the customer interaction to enable a profile of the customer, and possibly to segment their customer base, to enable them to provide a more targeted service and to manage the relationship with the customer optimally.
- *Issue 6: Knowledge management provides an understanding of the flow of knowledge (Q17)*
 - The above average score with reference to the role of knowledge management in providing an understanding of the flow of knowledge may be attributed to the fact that, through the explicit linkage of systems with customers and / or suppliers e.g. using extranets, staff can more visibly see and interpret the flow of knowledge between the organisation and its business partners. The same applies for making knowledge sharing and knowledge management explicit through the use of technology based knowledge management systems – the usage and flow of knowledge is more explicitly visible to staff and they have a better understanding of how knowledge integrates in the organisation, e.g. amongst divisions or through processes in the business process value chain.

The role of knowledge management in eBusiness and customer relationship management

10.2.3.4.b. Impact on organisations

- *Issue 1: Knowledge management provides a single point of entry to the knowledge base (Q19)*
 - The potential impact of the low average score of the respondent organisations with regards to this issue may be that knowledge organisation and retrieval is inefficient and ineffective, as users will have to access a variety of knowledge bases before finding all knowledge relevant to their particular enquiry. It may also indicate that various knowledge workers are managing sections of the knowledge base that may be more efficient if pooled together. The fact that users have to retrieve knowledge from different points of entry leads to time delays and loss of productivity. It may also be an indication of duplication of knowledge in the organisation, because if there isn't one consolidated view of what is available, duplication of knowledge will be very difficult to manage.
- *Issue 2: Knowledge management provides 24-hour access to knowledge (Q10)*
 - The above average score for 24-hour access to knowledge indicates that knowledge as a corporate asset is available any time it is required, on demand. The value of knowledge as organisational asset can therefore be utilised as and when the business requires it and the value extraction is therefore not limited by time restrictions, i.e. availability restrictions. This may increase the organisations' agility, specifically with reference to quick decision-making that is sometimes required. It is particularly relevant in organisations that deliver services 24 hours a day.
- *Issue 3: Knowledge management prevents duplication and encourages reuse of knowledge in different contexts (Q11, Q12)*
 - The average high score implies that knowledge management leads to efficient work practices through the easy retrieval and application of knowledge in a variety of contexts. This will apply across the total value chain of the organisation, i.e. core and enabling processes.
- *Issue 4: Knowledge management provides navigation ability, making searches easier (Q13)*
 - The above average score for this issue impacts the respondent organisations due to the fact that they will retrieve knowledge more effectively and efficiently and therefore save time and increase productivity. This will apply across the total value chain of the organisation, i.e. core and enabling processes.
- *Issue 5: Standardised customer knowledge leads to better customer service through having one view of the customer (Q21)*
 - The above average score for this issue impacts the respondent organisations due to the fact that standardized and consolidated knowledge of the customer

The role of knowledge management in eBusiness and customer relationship management

provides them with an understanding of the customer profile, detailing the total picture of the customer's needs and behaviour. It allows them to segment their market to allow their marketing strategies and therefore their business strategies to be more focused. They can build, maintain and strengthen their customer base continuously.

- *Issue 6: Knowledge management provides an understanding of the flow of knowledge (Q17)*
 - The above average score for this issue impacts the organisations positively as it creates an understanding of where in the organisation specific knowledge is of importance. It indicates that these organisations have some understanding of the integrated nature of knowledge flows and process flows. This must, however, be applied with reference to the management of knowledge to ensure optimal utilisation of knowledge in the business.

10.2.4. Knowledge management as factor that overcomes growing organisational and knowledge base complexity

10.2.4.1. Overview

- The average respondent profile for this dimension is high (Q16, Q17, Q18). The scores relating to importance of identifying tacit knowledge sources and the importance of knowledge management in enabling cross-divisional flow of knowledge were very high (>75%), whilst the profile was low with reference to the extent to which the respondent organisations embed knowledge management in day-to-day activities of staff (<60%).
- The score for this dimension from an industry perspective 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.
- From an industry perspective, the Professional Services industry had the highest score showing a high level of satisfaction, followed by Telecommunications, IT and Financial Services, all showing some dissatisfaction with the status quo.
- The perceptions of knowledge workers and other workers on this issue do not differ significantly.

The role of knowledge management in eBusiness and customer relationship management

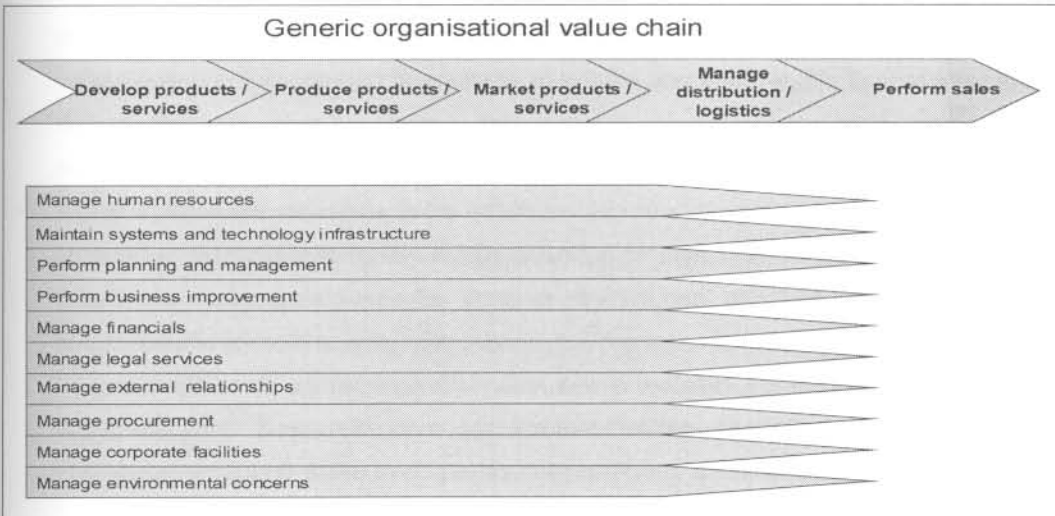


Figure 38. Areas of impact of knowledge management as factor that overcomes growing organisational and knowledge base complexity

10.2.4.2. Conclusion

10.2.4.2.a. Possible influencing factors

There are a number of possible factors influencing knowledge management as factor that overcomes increased organisational and knowledge base complexity:

- The relatively high score relating to the importance of identifying tacit knowledge sources may be due to the fact that organisations' knowledge management has not been completely formalised to focus on explicit knowledge in formal knowledge management systems. A large component of these organisations' knowledge management programmes may still focus on utilising knowledge through specialist individuals in the organisation who have a lot of useful tacit knowledge that has never been captured to make it explicit. The impact of this for organisations is that knowledge attrition, through either reduction of positions or through people that voluntarily leave the organisation, is a very big reality, rendering them exposed to losing extremely valuable knowledge that could affect the organisation on both strategic and operational level, depending on the knowledge of the specific individuals leaving the organisation. The fact that a lot of knowledge is in tacit format may also make the identification and retrieval thereof complex and therefore the value provided by the knowledge may not be optimised.
- The importance of knowledge management in enabling cross-divisional flow of knowledge may be due to the fact that these organisations are all national organisations with a number of divisions and geographical locations. This means that the potential for ineffective knowledge flow between divisions is very high, hence the importance attached to enabling of cross-divisional knowledge flow. The organisations' high ranking of the

The role of knowledge management in eBusiness and customer relationship management

importance of enabling knowledge flow across divisional boundaries, indicates that these organisations are in future more likely to focus on implementing more formalised technologies, processes and procedures to enable and improve the flow of knowledge across divisions, thus promoting the success of their knowledge management programmes.

- The low profile with reference to the extent to which the respondent organisations embed knowledge management in day-to-day activities of staff may be due to the fact that knowledge management may be done on an ad hoc, informal basis using a less structured and formalised approach. Knowledge management may also be viewed by the organisations as an administrative function, and is therefore not embedded into staff's day-to-day work. It may also be due to the fact that the value proposition of knowledge management may not have been clearly communicated and / or absorbed and accepted by staff. If staff understood the value proposition of knowledge management, embedding it into day-to-day work activities should be a natural response. The impact of the aforementioned for these organisations is that knowledge management has not yet been formalised adequately in these organisations, i.e. the potential value gained from their knowledge management activities has not been fully maximised and sufficient change management is essential to ensure that staff understand the value proposition of knowledge management on an individual, team and organisational level.
- The fact that the Professional Services industry scored high in this dimension may be due to the fact that organisations in this industry have a relatively complex knowledge base and organisational structure due to the fact that these organisations are usually more geographically dispersed than e.g. large South African IT corporates, with offices or branches in many smaller centres around the country and also internationally. This renders the need to use knowledge management to decrease the knowledge base and organisational complexity quite high. The Professional Services industry organisations' also may have greater knowledge base complexity due to the fact that they are knowledge intensive businesses, more so than e.g. organisations in the IT industry as they sell knowledge as a product / service. The Financial Services industry scored lowest on this dimension compared to other industries. These organisations are also usually geographically dispersed, so the same reasoning should apply as does for Professional Services, although it clearly does not apply to the same extent, as they are not internationally spread in terms of geographical location. The only deduction that the researcher can make is that the Financial Services industry may have other tools, structures and mechanisms in place to address organisational and knowledge base complexity, e.g. more intensive training of employees. The aforementioned implies that specific industries may have a greater need for knowledge management to overcome both organisational and knowledge base complexity due to the nature of the industry and

The role of knowledge management in eBusiness and customer relationship management

the associated organisations, and it has been implemented in varying degrees, providing opportunity for improvement in future.

10.2.4.2.b. Impact on organisations

Knowledge management as factor that overcomes organisational and knowledge base complexity, impacts the whole of the organisation as it plays a role in all core and enabling processes (refer Figure 38).

Knowledge management as factor that overcomes knowledge base and organisational complexity has an impact on both strategic and operational level. On the strategic level it allows for organisational agility, as the organisation can access strategic knowledge, mainly, but not exclusively, relating to core processes, through knowledge management tools and techniques, despite organisational and knowledge base complexity. This not only speeds up the decision-making process and allows the organisation to adapt to changes in the marketplace quickly, but also provides higher quality knowledge upon which decisions can be based. It also allows a better understanding of the complexities in the business, making strategy formulation more effective.

On an operational level, knowledge management as factor that overcomes organisational and knowledge base complexity, allows the organisation to understand what the knowledge base consists of and what knowledge can be accessed through knowledge management tools and techniques provided. Knowledge management also provides knowledge on the organisation itself to enable staff to comprehend the strategy and structure of the organisation, the products and services provided by the organisation, etc. Staff can therefore access knowledge pertaining to all core and enabling processes of the organisation. Staff understanding of and ability to access knowledge relating to the organisational value chain, in turn improves the efficiency of the value chain, thus positively impacting the execution of the business strategy.

10.2.4.3. Issues: Knowledge management as factor that overcomes growing organisational and knowledge base complexity

- *Issue 1: Knowledge management provides a single point of entry to the knowledge base (Q19)*
 - 2 Of the Respondent Organisations scored above 65% indicating satisfaction relating to the role of knowledge management in achieving efficiency improvements. 3 Of the Respondent Organisations scored below 60%, indicating severe problems in this area. Respondent Organisation C scored 12%, indicating

The role of knowledge management in eBusiness and customer relationship management

extremely severe problems in this area that may only be solved through change management interventions.

- 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)
- 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.
- *Issue 2: Knowledge management allows flow of knowledge across divisions and between organisations and geographical locations (Q17)*
 - A high level of consensus exists amongst respondents on the importance of knowledge management in enabling cross-divisional flow of knowledge (>75%)
 - 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).
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 3: Knowledge management is embedded into day to day work (Q18)*
 - A high level of consensus exists amongst respondents on the extent of knowledge management being embedded into day-to-day activities of staff (>75%).
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 4: Knowledge management provides navigation ability, making searches easier (Q22)*
 - Agreement exists amongst respondents that it is important to facilitate easier access to knowledge (>75%).
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 5: Importance of identification of tacit knowledge sources in overcoming increased organisational and knowledge base complexity (Q16)*
 - Agreement exists amongst respondents that it is important to identify tacit knowledge sources (>75%).
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.

The role of knowledge management in eBusiness and customer relationship management

10.2.4.4. Issue conclusions

10.2.4.4.a. Possible influencing factors

- *Issue 1: Knowledge management provides a single point of entry to the knowledge base (Q19)*
 - The low average score for the role of knowledge management in providing a single point of entry may be attributed to the fact that knowledge management may be fragmented in the respondent organisations, i.e. it may not have been implemented across the organisation. It may also be attributed to the fact that the knowledge management system does not provide comprehensive coverage of all knowledge sources, but only those deemed to be of critical importance to users, or those that are used a lot. It may also be attributed to the fact that a lot of knowledge is still in tacit format, i.e. when staff retrieves knowledge they have to use both tacit and explicit sources of knowledge.
 - The fact that knowledge workers perceive the provision of a single point of entry as higher than other staff may be attributed to the fact that knowledge workers may not be aware of all knowledge sources in the organisation. This is true of explicit sources, but especially of tacit knowledge sources.
- *Issue 2: Knowledge management allows flow of knowledge across divisions and between organisations and geographical locations (Q17)*
 - The high average score with reference to this issue may be attributed to the fact that the respondent organisations are large corporates with many divisions and they are all geographically spread, some locally and some internationally. They are fairly knowledge intensive organisations. Knowledge is fragmented in these organisations and therefore the flow of knowledge to ensure integration will be a top of mind knowledge management issue for these organisations. The high score for utilisation of knowledge of extranets for sharing knowledge with customers / suppliers indicate that sharing knowledge and integration with business partners are also top of mind due to participation of these organisations in eBusiness activities.
- *Issue 3: Knowledge management is embedded into day to day work (Q18)*
 - The fact that knowledge management is not embedded into the day-to-day work of staff may be attributed to the fact that knowledge management is not perceived as being integrated with the business, but rather as an administrative or support function. Organisations do not yet perceive knowledge as adding value to day-to-day activities. It may also be due to the lack of formal tools and platforms provided to enable integrating knowledge management with staff's day-to-day

The role of knowledge management in eBusiness and customer relationship management

activities, and due to a lack of explicit guidelines of how to apply knowledge management as a business philosophy.

- *Issue 4: Knowledge management provides navigation ability, making searches easier (Q22)*
 - The above average score for this issue may be attributed to technology based knowledge management systems in the respondent organisations that allow sophisticated searches for knowledge by using keywords, Boolean operators, fuzzy logic, taxonomies and other tools and techniques to retrieve knowledge. It is therefore possible to search and navigate the knowledge base in other ways than via traditional hierarchical searching.
- *Issue 5: Importance of identification of tacit knowledge sources in overcoming increased organisational and knowledge base complexity (Q16)*
 - The above average score for this issue may be attributed to the fact that respondent organisations have a lot of tacit knowledge in the organisation and therefore have a need to identify these sources.

10.2.4.4.b. Impact on organisations

- *Issue 1: Knowledge management provides a single point of entry to the knowledge base (Q19)*
 - The potential impact of the low average score of the respondent organisations with regards to this issue may be that knowledge organisation and retrieval is inefficient and ineffective, as users will have to access a variety of knowledge bases before finding all knowledge relevant to their particular enquiry. It may also indicate that various knowledge workers are managing sections of the knowledge base that may be more efficient if pooled together. The fact that users have to retrieve knowledge from different points of entry leads to time delays and loss of productivity. It may also be an indication of duplication of knowledge in the organisation, because if there isn't one consolidated view of what is available, duplication of knowledge will be very difficult to manage.
- *Issue 2: Knowledge management allows flow of knowledge across divisions and between organisations and geographical locations (Q17)*
 - The above average score impacts the organisations due to the fact that these organisations will most probably have excellent processes and platforms to facilitate flow of knowledge across boundaries. This makes knowledge readily available and accessible to those in need of it. It will also ensure integration of the knowledge base and prevention of duplication and the ability to reuse knowledge in a variety of contexts.

The role of knowledge management in eBusiness and customer relationship management

- *Issue 3: Knowledge management is embedded into day to day work (Q18)*
 - The impact of not embedding knowledge management in staff's day-to-day activities for the respondent organisations is huge. The implication is that these organisations have yet to grasp that knowledge pervades the whole business process value chain of an organisation and processes cannot be implemented without associated knowledge. It implies that these organisations are attempting to manage knowledge separately and not as an integral part of processes. Knowledge management will never be implemented successfully without an integrated approach and will never receive buy-in on top management level for this reason.
- *Issue 4: Knowledge management provides navigation ability, making searches easier (Q22)*
 - The above average score for this issue impacts the respondent organisations due to the fact that they will retrieve knowledge more effectively and efficiently and therefore save time and increase their productivity. This will apply across the total value chain of the organisation, i.e. core and enabling processes.
- *Issue 5: Importance of identification of tacit knowledge sources in overcoming increased organisational and knowledge base complexity (Q16)*
 - The above average score for this issue indicates that if tacit knowledge sources are difficult to identify it will negatively impact these organisations by making knowledge difficult to access, and by making timeous access access to knowledge difficult. It also makes it difficult for the organisation to have a complete picture of the knowledge that is available and retrievable.

10.2.5. Pooling of expertise in one central interface with internal and external parties

10.2.5.1. Overview

- 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 the 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.
- From an industry perspective, Professional Services had the highest score indicating a relatively high level of satisfaction, followed respectively by Telecommunications, Financial Services and IT, where severe problems have been indicated.
- The perceptions of knowledge workers and other workers on this issue do not differ significantly, except for question 19, where there is a huge (30%) perception difference on

The role of knowledge management in eBusiness and customer relationship management

the provision of one single point of entry to knowledge in the organisation. Knowledge workers perceive the provision thereof much higher than other staff does.

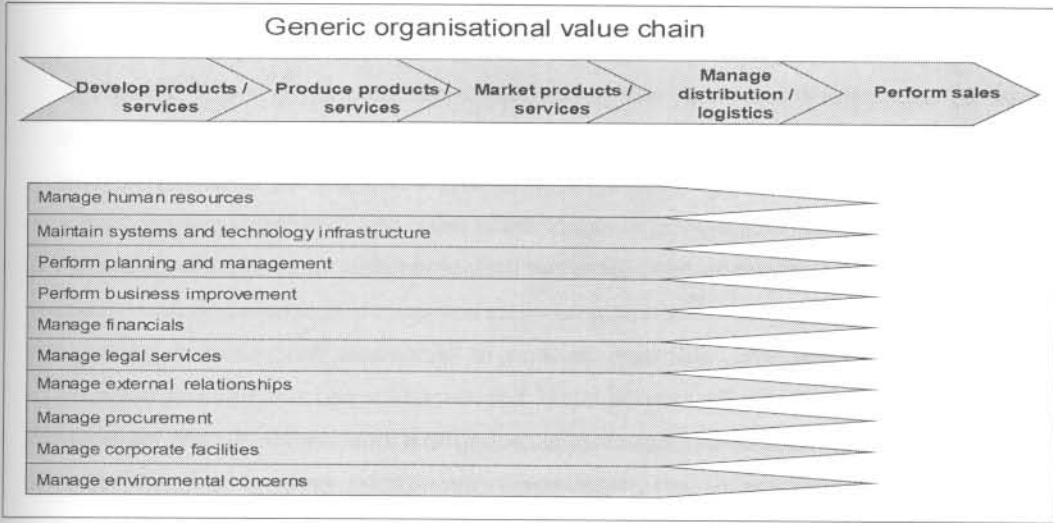


Figure 39. Areas of impact of knowledge management in the pooling of expertise

10.2.5.2. Conclusion

10.2.5.2.a. Possible influencing factors

There are a number of possible factors influencing for knowledge management as factor that assists in pooling organisational expertise:

- The role of knowledge management in the pooling of expertise received an average score from respondents, with the majority indicating that they are satisfied with the level of pooling of expertise, whilst two respondent organisations had severe problems with the pooling of expertise using knowledge management. The average score with some respondents indicating severe problems may be due to the fact that these organisations may have different focus areas for their knowledge management programmes rather than pooling of expertise, e.g. making knowledge accessible, distribution of knowledge, enabling knowledge flows, etc. Although all of the mentioned focus areas contribute to pooling of expertise, the objective of pooling of expertise is not realised to its full potential due to a lack of specific focus. It may also be attributed to the fact that many of the respondents placed a high value on tacit knowledge, i.e. there may not be that much explicit knowledge to be pooled, hence the perception that pooling of expertise is inadequate. This implies that the respondent organisations will have to place a larger focus on processes and tools for pooling of expertise and on conversion of tacit knowledge to explicit knowledge, but also on communicating the value proposition for the pooling of expertise via a knowledge management system. The lack of focus on pooling of expertise may also be due to an oversupply of labour in the South African labour

The role of knowledge management in eBusiness and customer relationship management

market. This may result in people not sharing their knowledge as “knowledge is power” and it gives them a competitive edge in retaining their positions in organisations. The labour situation in the country is therefore promoting a culture of non-sharing.

- From an industry perspective, Professional Services had the highest score, whilst IT had the lowest score. This may be attributed to the fact that Professional Services organisations sell expertise as a product / service, and would therefore have a natural tendency towards pooling that expertise in an explicit way to ensure maximum value extraction. The fact that IT had a low score in this regard may be due to the fact that with the speed of technology advancements, the practicality of pooling of expertise may be questioned. Knowledge and expertise could be outdated so quickly that an argument can be made that it is not worthwhile to pool all expertise. This implies that pooling of expertise through the use of knowledge management will be more relevant in some industries than in others and this needs to be taken into account when developing a knowledge management programme. Once again, the IT industry's lack of focus on pooling of expertise may also be due to an oversupply of IT skilled labour in the South African labour market. This may result in people not sharing their knowledge as “knowledge is power” and it gives them a competitive edge in retaining their positions in organisations. The labour situation in the country is therefore promoting a culture of non-sharing.
- The fact that knowledge workers have a much stronger perception that the knowledge management function provides a single point of access to knowledge in the organisation may be attributed to the fact that communication on the existence of one point of entry to other staff was inadequate. It may, on the other hand, also be attributed to the fact that knowledge workers may not be aware of additional knowledge sources that have not been covered by the proposed single point of access. The implication is that communication and awareness of a single point of entry needs to be measured for effectiveness, and knowledge workers should ensure that they are aware of all possible knowledge sources in the organisation to be covered by a single point of entry. This may be achieved through ensuring that the knowledge management function is a core part of the business, and not an administrative function.

10.2.5.2.b. Impact on organisations

The impact that knowledge management has in the pooling of expertise is high across the organisational value chain, on both core and enabling processes (see Figure 37). It will have a significant impact on the core processes, as these are the heart of the business. Ensuring that expertise in these processes is utilised to its full potential is crucial to the execution of the business strategy.

The role of knowledge management in eBusiness and customer relationship management

Pooling of expertise through knowledge management has an impact on both strategic and operational level. Pooling of expertise on core processes has a significant strategic impact. It provides access to a substantial amount of expertise for quick and accurate decision-making and therefore provides the organisation with agility in order to quickly adapt to market changes. It also plays a role in identifying market opportunities for organisations through the sharing of ideas and accessibility of knowledge that may spark and improve innovation. Pooling of expertise may also contribute to swifter implementation of the business strategy, and may enhance efficiency with reference to the day-to-day execution of business strategy. On a strategic level, pooling of expertise may also allow the organisation to see the gaps in the organisational knowledge base, and to put programmes in place to fill those gaps, thus strengthening the delivery capability of the organisation.

Pooling of expertise through knowledge management will also have an operational impact. It may create more efficient and effective work processes in both core and enabling processes, thereby improving standard of output and increased productivity. It may provide a platform for innovation in the day-to-day activities for all employees in the organisation, irrespective of level or location, through the availability of thought provoking knowledge. Pooling of expertise may also create a learning environment where employees can further their knowledge levels in an informal way. It may also broaden employees' knowledge base as they may be exposed to knowledge of areas in the business that does not pertain to their everyday work environment. The pooling of expertise through knowledge management creates a culture and environment for learning.

10.2.5.3. Issues: Knowledge management as factor that overcomes growing organisational and knowledge base complexity

- *Issue 1: Knowledge management provides a single point of entry to the knowledge base inter-and intra organisational (Q19; Q20; Q21)*
 - There is some dissatisfaction amongst respondent organisations (average score between 60—65%) on the extent to which knowledge management provides a useful structure to the knowledge base inter- and intra the organisation. It seems that consensus exists on one interface for customer knowledge (>75%), but that some dissatisfaction exists on a single point of entry to the knowledge base of the organisation (internally) (<65%), and severe problems exist regarding the extent to which an interface is provided with business partners (<40%).
 - Respondent responses are similar for questions 20 and 21, but 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).

The role of knowledge management in eBusiness and customer relationship management

- The perceptions of knowledge workers and other workers on this issue do not differ significantly, except for question 19 where 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 to be much better than other staff does.
- *Issue 2: Knowledge management facilitate easier and quicker access to knowledge due to structure (Q22)*
 - Agreement exists amongst respondents that it is important for respondent organisations to facilitate easier access to knowledge (>75%).
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 3: Knowledge management provides useful structure to the knowledge base (Q23)*
 - There is some dissatisfaction amongst respondent organisations (score between 60—65%) on the extent to which knowledge management provides a useful structure to the knowledge base.
 - 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.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.

10.2.5.4. Conclusions

10.2.5.4.a. Possible influencing factors

- *Issue 1: Knowledge management provides a single point of entry to the knowledge base inter-and intra organisational (Q19; Q20; Q21)*
 - The low average score for the role of knowledge management in providing a single point of entry may be attributed to the fact that knowledge management may be fragmented in the respondent organisations, i.e. it may not have been implemented across the organisation. It may also be attributed to the fact that the knowledge management system does not provide comprehensive coverage of all knowledge sources, but only those deemed to be of critical importance to users, or those that are used a lot. It may also be attributed to the fact that a lot of knowledge is still in tacit format, i.e. when staff retrieve knowledge they have to use both tacit and explicit sources of knowledge.
 - The fact that knowledge workers perceive the provision of a single point of entry as higher than other staff may be attributed to the fact that knowledge workers

The role of knowledge management in eBusiness and customer relationship management

may not be aware of all knowledge sources in the organisation. This is true of explicit sources, but especially of tacit knowledge sources.

- *Issue 2: Knowledge management facilitate easier and quicker access to knowledge due to structure (Q22)*
 - The above average score for this issue may be attributed to the fact that structure allows easier and more efficient searching and retrieval due to the provision of context within which knowledge exists.
- *Issue 3: Knowledge management provides useful structure to the knowledge base (Q23)*
 - The dissatisfaction of respondents with reference to this issue may be attributed to the fact that knowledge workers that are responsible for structuring the knowledge base may not understand the processes of the business within which knowledge flows, and therefore the structure may not be aligned with the process tasks and activities for which users need the knowledge they retrieve. It may also be attributed to the fact that the knowledge management programme only covers certain areas of the business, i.e. the knowledge management systems are not comprehensive in their coverage. The structure would therefore e.g. not reflect certain processes or divisions and the associated knowledge.

10.2.5.4.b. Impact on organisations

- *Issue 1: Knowledge management provides a single point of entry to the knowledge base inter-and intra organisational (Q19; Q20; Q21)*
 - The potential impact of the low average score of the respondent organisations with regards to this issue may be that knowledge organisation and retrieval is inefficient and ineffective, as users will have to access a variety of knowledge bases before finding all knowledge relevant to their particular enquiry. It may also indicate that various knowledge workers are managing sections of the knowledge base that may be more efficient if pooled together. The fact that users have to retrieve knowledge from different points of entry leads to time delays and loss of productivity. It may also be an indication of duplication of knowledge in the organisation, because if there isn't one consolidated view of what is available, duplication of knowledge will be very difficult to manage.
- *Issue 2: Knowledge management facilitate easier and quicker access to knowledge due to structure (Q22)*
 - The above average score on this issue indicates that these organisations find structure to the knowledge base useful and efficient with reference to the retrieval of knowledge. Structure therefore seems to have a big impact on the respondent organisations.

The role of knowledge management in eBusiness and customer relationship management

- *Issue 3: Knowledge management provides useful structure to the knowledge base (Q23)*
 - The respondent organisations' dissatisfaction with the structure provided by knowledge management may impact negatively on these organisations because users are struggling to find and retrieve the knowledge they need. This may lead to a lack of buy-in from users with reference to the value of knowledge management and they will therefore not utilise the systems and processes at their disposal. This may have disastrous consequences for the respondent organisations, as they may get no return on investment from their knowledge management programme.

10.2.6. Knowledge management in the learning environment

10.2.6.1. Overview

- The score for this dimension is below 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.
- From an industry perspective, Telecommunications had the highest score, followed respectively by Professional Services with some dissatisfaction, IT and Financial Services with severe problems in this dimension.
- The perceptions of knowledge workers and other workers on this issue do not differ significantly, except for question 24, where knowledge workers believe that knowledge management has a larger role in innovation than other staff does.

The role of knowledge management in eBusiness and customer relationship management

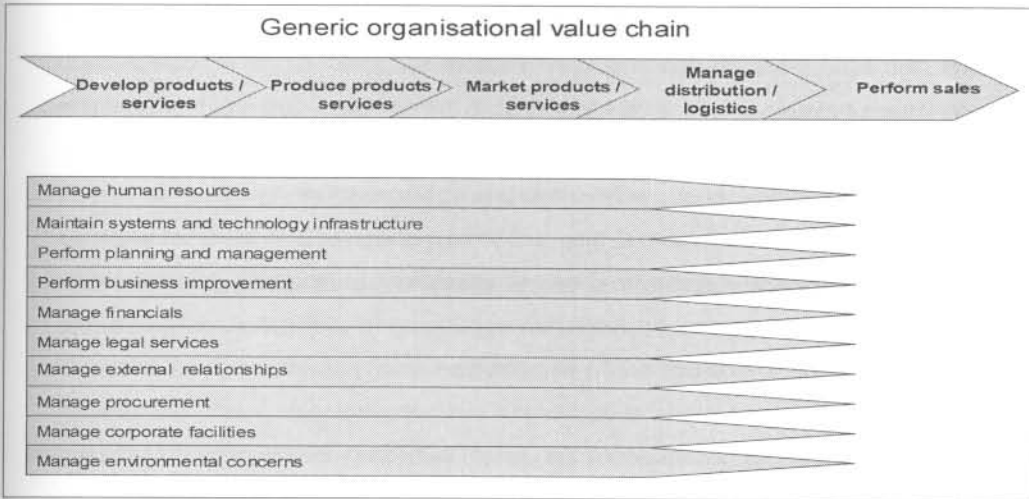


Figure 40. Areas of impact of knowledge management in the learning environment

10.2.6.2. Conclusion

10.2.6.2.a Possible influencing factors

There are a number of possible factors influencing for knowledge management in the learning environment:

- The below average score for the role of knowledge management in the learning environment, shows that knowledge management is not perceived as being a great contributor to learning in South African organisations. The work environment of many large, as well as small and medium, organisations is not geared towards facilitation of self-education. A possible reason may be that South Africa is still a third world country, where, in many cases, adequate technology is lacking and a learning culture does not exist. South Africa also has a problem with illiteracy or limited literacy, which makes the need for a learning environment greater, but disables traditional knowledge management to some extent, which assumes some level of traditional literacy, as a primary tool for self-education. This is especially true for organisations in specific environments, e.g. manufacturing, where a large part of the organisation's workforce has very little formal education. The fact that knowledge management is currently not seen as a great factor in the learning environment, shows that there are great opportunities for the application of knowledge management as a tool in the learning environment, especially in light of the emphasis being placed by government and organisations of skilling people and increasing their levels of knowledge.
- The Telecommunications industry rated the highest score with reference to the role of knowledge management in the learning environment. This may be due to the fact that these organisations are very technology driven and thus have the platforms to create a

The role of knowledge management in eBusiness and customer relationship management

learning environment through knowledge management. Most telecommunication organisations in South Africa are relatively new and may therefore have built knowledge management into the design of the organisations to enable a learning environment. The telecommunications industry in South Africa is also a highly competitive industry since the advent of mobile phone technology and the market opening up for the second national operator for fixed line telecommunications, and is therefore a very innovative industry where learning and putting knowledge to use is of extreme importance. The low rating that was given to the role of knowledge management in the learning environment in the Financial Services industry may be indicative of the fact that it is such a fast changing industry that these organisations have a tendency to share knowledge through on the job training, or alternatively they may focus on more formal techniques such as formal training rather than through knowledge management. Some organisations, by their very nature, will thus be more inclined to use knowledge management as tool to encourage learning than others.

- The fact that knowledge workers rated the role of knowledge management in innovation higher than other staff, may be due to the fact that other staff may have a lack of or limited understanding of the value of knowledge itself and the value of accessibility and availability of knowledge for innovation. Staff may have the perception that innovation happens intuitively, forgetting the role that their current knowledge and experience, together with supporting knowledge, plays in the innovation process.

10.2.6.2.b Impact on organisations

As can be seen from Figure 40, knowledge management in the learning environment plays a significant role across the organisation, affecting all core and enabling processes.

Knowledge management in the learning environment has an effect on both the strategic and operational level. On the strategic level, if limited or no learning takes place, no or limited innovation will take place. Staff and management may also have inadequate knowledge at hand for decision-making and inefficient interpretations of the marketplace may take place, negatively impacting not only the execution of the current business strategy, but also future strategic planning. This in turn would lead to a lack the competitiveness of the organisation, and it would negatively impact the agility of the organisation. An organisation that is perceived to have lost its competitive edge and agility may be faced with a loss of image and brand in the marketplace. These organisations also risk the chance of not being perceived by the marketplace as employers of choice, and may thus not attract human capital and therefore knowledge and experience of the highest potential.

The role of knowledge management in eBusiness and customer relationship management

On the operational level, knowledge management in the learning environment can have an impact on the effectiveness and efficiency of the organisation, as learning can make workers complete tasks more effectively and efficiently if they have more knowledge on the tasks and more knowledge on the context within which these tasks are performed. These organisations may also have a limited culture of innovation and may find that their skills base and knowledge levels in the organisation may become stagnant. This may have a negative impact on the growth of the organisation. Organisations that have a low performance with reference to the role of knowledge management in the learning environment, may lack continuous improvement due to a limited and stagnant knowledge of the workforce. These organisations will also be unable to explore the full potential of its workforce and exploit a learning culture to the advantage of the organisation.

10.2.6.3. Issues: Knowledge management in the learning environment

- *Issue 1: Knowledge management increases the quality and speed of innovation (Q24)*
 - A high level of agreement exists that knowledge management does not lead to innovation to a great extent (<60%).
 - 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.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 2: Knowledge management leads to accelerated learning and skills development on individual, team and organisational level (Q25)*
 - A high level of consensus exists on the importance of knowledge management in providing the respondent organisations with knowledge strategic to the business.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 3: Knowledge management increases efficiency and productivity (Q26)*
 - Not all respondents are entirely satisfied with the extent to which knowledge management increases employee productivity (score between 60 and 65%).
 - 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.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.

10.2.6.4. Conclusions

10.2.6.4.a. Possible influencing factors

- *Issue 1: Knowledge management increases the quality and speed of innovation (Q24)*
 - The below average score of respondents on this issue may be attributed to the fact that the focus of their knowledge management programmes may be on efficiency improvements and not necessarily aimed at innovation. It may also be attributed to the fact that the value of knowledge management is not perceived as being a direct contributor to the innovation process, but rather as an indirect contributor through innovators' experience and thinking processes.
- *Issue 2: Knowledge management leads to accelerated learning and skills development on individual, team and organisational level (Q25)*
 - The above average score for this issue may be attributed to the availability of knowledge leading to a greater exposure to numerous concepts that the users have not been exposed to before. Knowledge management provides platforms for making the knowledge available and accessible. The fact that the respondent organisations are nearly all in fairly innovative industries may also contribute to the need for users to develop their skills and knowledge continuously.
- *Issue 3: Knowledge management increases efficiency and productivity (Q26)*
 - The sense of dissatisfaction with the increase in efficiency and productivity through knowledge management may be attributed to the fact that users feel the programmes are not as optimized as it could be and therefore have a negative perception of the extent of the increase in productivity and efficiency. It may also be due to the fact that users do not perceive knowledge as being a contributor to their efficiency and productivity increases, i.e. they cannot distinctly identify the impact knowledge and knowledge management has on their day-to-day work.

10.2.6.4.b. Impact on organisations

- *Issue 1: Knowledge management increases the quality and speed of innovation (Q24)*
 - The below average score on this issue may impact the respondent organisations due to the fact that the value of knowledge as resource in innovation is not maximized. The necessary focus for providing knowledge and the required processes for making it available and accessible for innovation is lacking due to a lack of understanding of the explicit, distinguishable role of knowledge in the innovation process.

The role of knowledge management in eBusiness and customer relationship management

- *Issue 2: Knowledge management leads to accelerated learning and skills development on individual, team and organisational level (Q25)*
 - The above average score of the respondent organisations indicates a positive impact on the organisations as the learning environment is fostered in these organisations. This will lead to improved skills and knowledge bases in the organisations, increasing efficiency, effectiveness and productivity of staff and therefore improved operations.
- *Issue 3: Knowledge management increases efficiency and productivity (Q26)*
 - The below average score indicates that the full value of knowledge as organisational asset is not being leveraged, and therefore the respondent organisations are not as effective, efficient and productive as they could be.

10.2.7. Knowledge management as measure to prevent knowledge attrition

10.2.7.1. Overview

- 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.
- From an industry perspective, Telecommunications had the highest score, although the industry indicates some dissatisfaction with the status quo, followed respectively by IT, Financial Services and Professional Services, where there are severe problems in this regard.
- The perceptions of knowledge workers and other workers on this issue do not differ significantly.

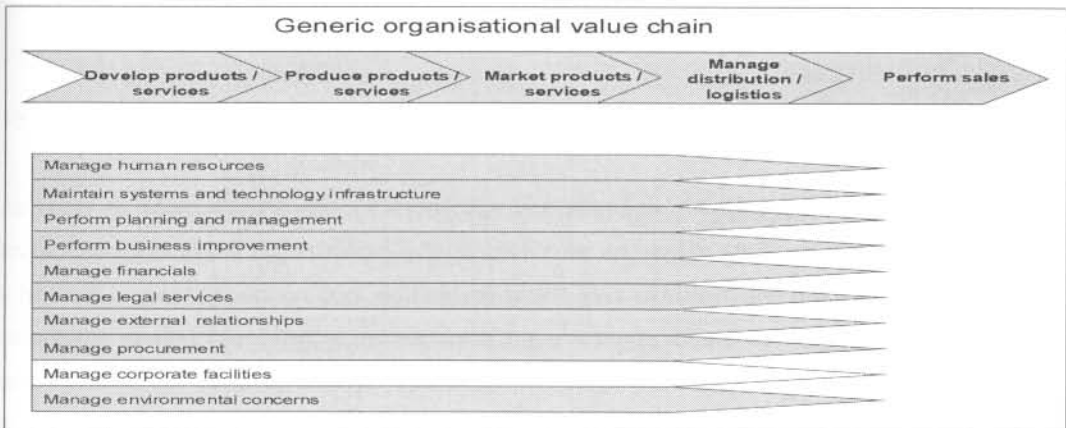


Figure 41. Areas of impact of knowledge management in the prevention of knowledge attrition

10.2.7.2. Conclusion

10.2.7.2.a. Possible influencing factors

There are a number of possible factors influencing knowledge management's role in preventing knowledge attrition:

- The low score relating to knowledge attrition prevention may be attributed to the fact that in the current South African economic environment, there is an oversupply of highly skilled and qualified staff in the job market. Skilled or specialist labour can therefore be easily replaced, making it largely irrelevant for organisations to retain staff's knowledge when they leave the organisation. The low score on prevention of knowledge attrition may also be due to the fact that knowledge management systems in South Africa may not be sophisticated enough to ensure the capturing of tacit knowledge to explicit and retaining knowledge in that way. The implication is that knowledge management programmes in South Africa may not have a strong knowledge attrition prevention focus, as is the case in many other countries in the world.
- Telecommunications had the highest score from an industry perspective, which may be attributed to the fact that the industry is a fast changing, innovative industry, where it is important to keep track of innovations and changes to be made. It would therefore have a higher impact if people left these organisations than in other industries and tacit knowledge has not been captured into explicit. Professional Services ranked the lowest in this dimension. This may be due to the fact that these organisations are international organisations, enabling them to utilise or substitute local human resources with resources from other countries, e.g. through exchange programs. It may also be attributed to the fact that there is an over supply in the Professional Services job market, making replacement of knowledge and skills easy. The implication is that, due to the nature of the organisations, their focus on prevention on knowledge attrition may differ.

10.2.7.2.b. Impact on organisations

As seen in Figure 41, the role of knowledge in prevention of knowledge attrition has a high impact throughout the organisation, affecting all core and the majority of enabling processes. It has the biggest impact on core processes, where loss of knowledge relating to product and or service related client-facing issues could have a major impact on the core effectiveness and efficiency of the business, as well as on its image portrayed to the market. Knowledge management as agent in preventing knowledge attrition also has an impact in enabling processes through ensuring continuity in knowledge and processes. If knowledge is lost, continuity in processes may suffer and there may be a lack of continuity in the tacit knowledge base of the organisation.

The role of knowledge management in eBusiness and customer relationship management

Knowledge as factor in preventing knowledge attrition has an impact on both strategic and operational level. On the strategic level, knowledge strategic to the business may be lost when key staff members leave the organisation, thus affecting business performance. There are also cost and time factors to consider when replacing key staff members and their associated knowledge. On the operational level, loss of knowledge may lead to loss of efficiency and effectiveness, resulting in reduced productivity. It may also lead to additional cost due to time and materials relating to training of newly recruited staff and building their knowledge and skills base, to replace staff that left the organisation. Knowledge attrition may also lead to lack of continuity in processes, tasks and activities on the operational level.

10.2.7.3. Issues: Knowledge management as measure to prevent knowledge attrition

- *Issue 1: Tacit knowledge must be converted into explicit knowledge in stead of trying to retain employees (Q27)*
 - Severe problems exist in translating tacit knowledge into explicit knowledge in the average profile of respondents (<50%).
 - 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.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.

10.2.7.4. Conclusions

10.2.7.4.a. Possible influencing factors

- *Issue 1: Tacit knowledge must be converted into explicit knowledge in stead of trying to retain employees (Q27)*
 - The below average score of the respondent organisations may be attributed to the fact that there is an over supply of workers in the labour market and organisations know that they can easily replace workers and their knowledge. They therefore do not go to the trouble of trying to retain employees.

The role of knowledge management in eBusiness and customer relationship management

10.2.7.4.b. Impact on organisations

- *Issue 1: Tacit knowledge must be converted into explicit knowledge in stead of trying to retain employees (Q27)*
 - The below average score of the respondent organisations indicates that there are severe problems in retaining knowledge through conversion of tacit knowledge to explicit knowledge. The impact on these organisations is twofold. Firstly it means that if staff leaves the organisation, their knowledge may be easily replaced and the knowledge and experience of staff members may be lost to the organisation for good. The second impact is that if the organisations are aware of this, they may be paying a high premium in terms of salaries to try and retain individuals with specialist knowledge that is not easily replaceable in the absence of conversion of tacit knowledge to explicit knowledge.

10.2.8. Knowledge management as factor that increases organisational agility

10.2.8.1. Overview

- The average respondent profile shows an above average score for questions 28, 29, 30 and 31. Importance of providing the right knowledge speedily to adapt to changes in the marketplace, and the importance of knowledge management in reducing time to market of products and services scored above 75%, whilst the extent to which knowledge management increased the efficiency of decision-making indicated severe problems in the respondent organisations with a score below 60%.
- 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 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 satisfaction with reference to the role of knowledge management in achieving organisational agility.
- From an industry perspective, Financial Services had the highest score, followed by Telecommunications, IT and Professional Services. All industries indicated satisfaction with the status quo.
- The perceptions of knowledge workers and other workers on this issue do not differ significantly.

The role of knowledge management in eBusiness and customer relationship management

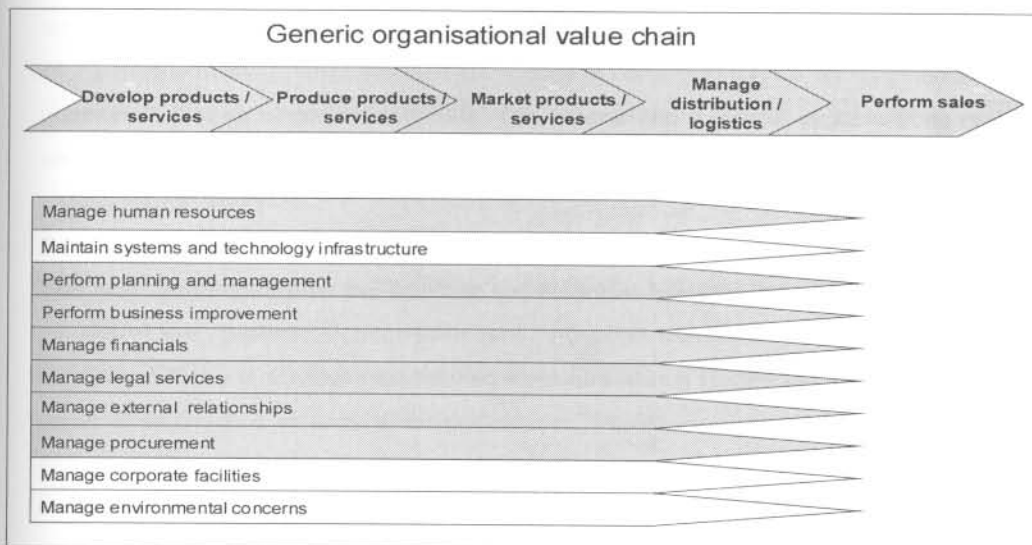


Figure 42. Areas of impact of knowledge management in increased organisational agility

10.2.8.2. Conclusions

10.2.8.2.a. Possible influencing factors

There are a number of possible factors influencing knowledge management's role in increasing organisational agility:

- The importance of providing the right knowledge speedily to adapt to changes in the marketplace, and the importance of knowledge management in reducing time to market of products and services obtained a high average score from respondents. This may be attributed to the fact that organisations attach importance to strategic knowledge, rather than operational knowledge, very well to ensure competitiveness and innovation in the marketplace. It is, however, interesting to note that the extent to which knowledge management increased the efficiency of decision-making indicates severe problems in the respondent organisations. It seems that knowledge and knowledge management is used to innovate in order to design new products and services and to build or assemble these new products and services, and to *implement or execute* these new strategies, but it does not play a significant part in the decision-making process. This may be attributed to the fact that strategic knowledge is managed outside of the formal knowledge management realm, e.g. in decision-makers heads, i.e. in tacit format, therefore a knowledge management system is not used to provide the knowledge on which decisions are based in tacit format. This aligns with the earlier finding that there is a lack of conversion of tacit knowledge to explicit knowledge in the respondent organisations. The implication is that organisations need to understand the value that it can add to make strategic tacit knowledge explicit. Management teams of organisations, though having

The role of knowledge management in eBusiness and customer relationship management

tacit strategic knowledge available, can never have a complete picture of the potential of all the tacit knowledge or of the tacit knowledge in combined format, as they do not have a complete picture of what is available. This means that currently, organisations are not unlocking the potential value of the knowledge available to them in order to improve organisational agility.

- From an industry perspective, Financial Services had the highest score in this dimension. This may be attributed to the fact that the Financial Services industry is a highly agile industry due to the fierce competition and innovation within the industry. The Financial Services industry is a knowledge intensive industry, which utilises the knowledge to build on its strengths and to ensure competitiveness. Professional Services ranked lowest in this dimension. This may be attributed to the fact that, of the four industries, this industry is the one with the least radical change in terms of innovation, though change and adaption to the market needs still remain extremely vital. The conclusion is therefore that some industries or organisations will focus more on utilising knowledge to ensure organisational agility, as competition and the need for innovation is more relevant or has a higher impact in some industries than in others.

10.2.8.2.b Impact on organisations

Knowledge management has a large role in ensuring organisational agility, as can be seen in Figure 42. It has an impact on all the core processes and the majority of the enabling processes.

On a strategic level knowledge management can impact organisational agility through the provision of knowledge relating to the core business processes, based on which strategic decisions can be made relating to the organisation's products and services, its delivery channels and mechanisms, its competitive position in the market, market segmentation, future potential growth, etc. Knowledge management can also impact on a strategic level by providing knowledge as base for innovation to ensure competitive advantage.

On an operational level, knowledge management can ensure organisational agility through facilitation of speedy implementation of the business strategy by providing knowledge applicable to the implementation. Knowledge management can also stimulate innovation on an operational level through the provision of knowledge as base for innovation. These innovations may lead to competitive advantage or even lead to a change in strategy. Knowledge management can also, through the provision of knowledge, assist staff in identifying opportunities for the organisation during its day-to-day operations leading to improved efficiency and effectiveness, which may possibly lead to a strategic impact as well, thus linking the strategic and operational impact.

The role of knowledge management in eBusiness and customer relationship management

10.2.8.3. Issues: Knowledge management as factor that increases organisational agility

- *Issue 1: Knowledge management increases the quality and speed of decision-making (Q28)*
 - Respondents showed some dissatisfaction with the extent to which knowledge management increased the efficiency of decision-making.
 - 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.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 2: Knowledge management increases organisational agility through faster decision making and quicker adaption to market changes (Q29, Q30)*
 - 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 and a high level of agreement exists that knowledge management is important in reducing time to market of products and services.
 - 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).
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 3: Availability of knowledge leads to increased organisational agility (Q31)*
 - There is a high level of agreement amongst respondents on the role of knowledge availability in organisational agility.
 - Responses for this question 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.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.

10.2.8.4. Conclusions

10.2.8.4.a. Possible influencing factors

- *Issue 1: Knowledge management increases the quality and speed of decision-making (Q28)*
 - The below average score for this issue may be attributed to the fact that knowledge is used in decision-making implicitly, and therefore knowledge management as means of provision of the knowledge upon which decisions are based is not perceived as making a direct contribution to the speed and quality of decision-making. It may also be attributed to the fact that knowledge management programmes in the respondent organisations have an operational rather than a strategic focus, and therefore the impact on the speed and quality of decision-making is not so apparent.
- *Issue 2: Knowledge management increases organisational agility through faster decision making and quicker adaption to market changes (Q29, Q30)*
 - The above average score with reference to the role of knowledge in increasing organisational agility through faster decision-making and quicker adaption to market changes may be attributed to the fact that most of the respondent organisations are in highly innovative and fast changing industries and it is therefore critical for them to be agile. Most of these organisations are also highly knowledge intensive, which probably increases the understanding of the value that knowledge and knowledge management can add in trying to remain competitive and even to be the market leader in their particular industries. They would therefore be more prone to maximize the value they get from knowledge and knowledge management to increase their competitive advantage.
- *Issue 3: Availability of knowledge leads to increased organisational agility*
 - The above average score for this issue may be due to the fact that knowledge management programmes has made knowledge more available and accessible to those who need it, especially on a strategic level to ensure organisational agility. The availability of knowledge leads to increased organisational agility due to the fact that informed decisions can be made at the right time.

10.2.8.4.b. Impact on organisations

- *Issue 1: Knowledge management increases the quality and speed of decision-making (Q28)*
 - The below average score for this issue will have a negative impact on organisations. Decision-makers will not be able to make accurate, informed

The role of knowledge management in eBusiness and customer relationship management

decisions due to the lack of availability and accessibility to knowledge that assist in this process.

- *Issue 2: Knowledge management increases organisational agility through faster decision making and quicker adaption to market changes (Q29, Q30)*
 - The above average score for this issue indicates that the respondent organisations will be able to make swift decisions to enable them to adapt to market changes quickly.
- *Issue 3: Availability of knowledge leads to increased organisational agility*
 - The above average score indicates that for the respondent organisations, availability of knowledge leads to increased organisational agility due to the fact that informed decisions can be made at the right time.

10.2.9. Knowledge management as input in determining the organisation's strategic direction

10.2.9.1. Overview

- The score for this dimension is high on the average respondent profile, with three questions' scores ranking in the range 65%-75%, indicating some satisfaction with reference to the availability of knowledge leading to increased organisational agility, the importance of knowledge management in identifying new business opportunities and the extent to which knowledge is seen as a corporate asset. One question was rated very high on the satisfaction scale, with specific reference to the role of knowledge management in providing knowledge strategic to the business (>75%).
- 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.
- From an industry perspective, Financial Services had the highest score by far, followed by IT, Telecommunications and Professional Services. All industries indicated satisfaction with the status quo.
- The perceptions of knowledge workers and other workers on this issue do not differ significantly. However, other staff members perceive knowledge management as being more important in identifying new business opportunities than knowledge workers do.

The role of knowledge management in eBusiness and customer relationship management

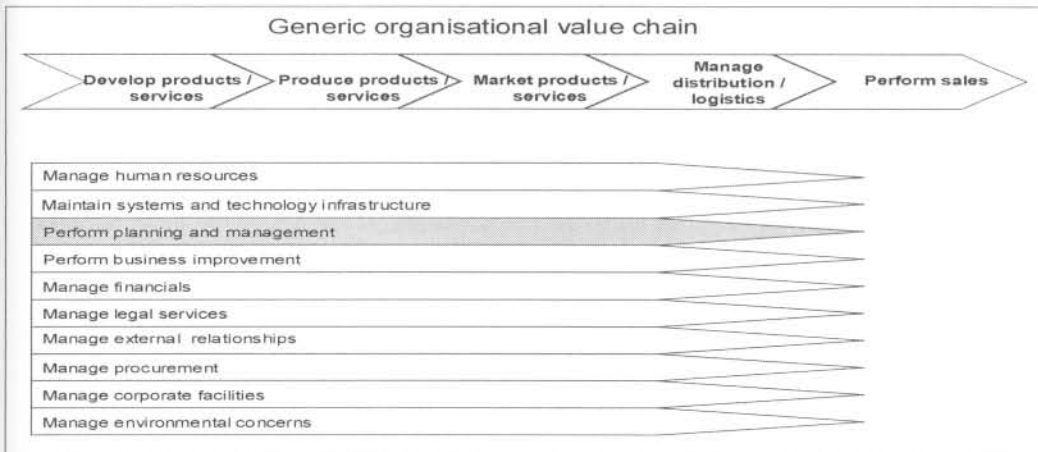


Figure 43. Areas of impact of knowledge management in determining the organisation's strategic direction

10.2.9.2. Conclusion

10.2.9.2.a. Possible influencing factors

There are a number of possible factors influencing knowledge management's role in determining the organisation's strategic direction:

- The high score in this dimension, indicating some satisfaction with reference to the availability of knowledge leading to increased organisational agility, the importance of knowledge management in identifying new business opportunities and the extent to which knowledge is seen as a corporate asset, may be attributed to the fact that South African organisations have become aware that they are operating in the knowledge economy and that knowledge is an asset as important as labour, capital or land. Due to this increased awareness, these organisations are extracting value from knowledge available to them, more than before. This may also be due to the fact that, with the advent of technology and knowledge management systems, more knowledge is available to them on a global basis to extract value from. The impact is that South African companies are waking up to the fact that knowledge can provide them with a competitive edge in terms of determining strategic direction, and are therefore standing on the brink of a new era where knowledge and the access to and management thereof will become the main differentiating factor for businesses. The realisation of the value of knowledge and knowledge management has, however, only been implemented or realised on a limited scale, and therefore a lot of potential for future exploitation exists.
- The Financial Services industry had the highest rating with reference to the role of knowledge management in determining organisational strategic direction. Once again the deduction can be made that due to the knowledge intensive nature of the industry, knowledge management is a more important factor compared to other industries. The

The role of knowledge management in eBusiness and customer relationship management

competitive nature of the Financial Services industry also makes it more inclined to use knowledge in determining strategic direction, specifically with reference to innovation. Professional Services scored the lowest, which can be attributed to the fact that the industry is not as innovative as the other industries in the study, or due to the fact that change does not take place as rapidly in Professional Services as in IT. This implies that there is potential for improvement in some industries with reference to using knowledge management in assisting in determining organisational strategic direction.

- The fact that other staff perceive knowledge management as being more important in identifying new business opportunities than knowledge workers do, may be due to the fact that staff have a better understanding of the value of the application knowledge within a given business context and with specific reference to the identification of new business opportunities than knowledge workers do. This implies that knowledge workers should work closer to the day-to-day operations within the core business processes to ensure better alignment between the knowledge requirements of the business and the systems, services and processes relating to knowledge management.

10.2.9.2.b Impact on organisations

Knowledge management has an impact on the value chain mainly on the enabling process of planning and management (see Figure 43). It can be argued that some strategic direction may also originate in the core processes of the value chain, but the researcher is of the opinion that the main impact of knowledge management on the strategic direction of the business will be in the planning and management process. Knowledge management can enable the planning and management process through the provision of knowledge strategic to the business and its operating environment, enabling it to make decisions regarding its current and future situation with reference to its competitive position in the marketplace, the needs for its products and services within the market, drivers for the business, together with critical success factors and the value proposition of the business within the market. It will also allow management to determine whether new markets and possible new products and services need to be investigated.

10.2.9.3. Issues: Knowledge management as input in determining the organisation's strategic direction

- *Issue 1: Knowledge management increases the quality and speed of decision-making (Q28)*
 - Respondents showed some dissatisfaction with the extent to which knowledge management increased the efficiency of decision-making.

The role of knowledge management in eBusiness and customer relationship management

- 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.
- The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 2: Availability of knowledge at the right time to the right people increases an organisation's agility (Q29)*
 - 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.
 - 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.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 3: Knowledge management provides the organisation with knowledge strategic to the business (Q32)*
 - In the average respondent profile, a high level of consensus exists on the importance of knowledge management in providing the respondent organisations with knowledge strategic to the business.
 - Respondent Organisation G (Insurance) deems the provision of knowledge strategic to the business as more important than the other respondent organisations.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 4: Knowledge is a corporate asset (Q34)*
 - In the average respondent profile, there is some agreement with reference to the perception that knowledge is a corporate asset (65%-75%).
 - Respondent Organisation C (IT) perceives knowledge much less of a corporate asset than the other respondent organisations.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 5: Knowledge management is tied to the business strategy (Q32, Q33)*
 - A high level of consensus exists on the importance of knowledge management in providing the respondent organisations with knowledge strategic to the business (Q32), and some satisfaction exists on the importance that knowledge management plays in identifying new business opportunities (Q33).

The role of knowledge management in eBusiness and customer relationship management

- 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 related to business strategy, differs vastly (Q33).
- The perceptions of knowledge workers and other workers on question 32 do not differ significantly; with reference to question 33 other staff perceives knowledge management as being more important in identifying new business opportunities than knowledge workers do.

10.2.9.4. Conclusions

10.2.9.4.a. Possible influencing factors

- *Issue 1: Knowledge management increases the quality and speed of decision-making (Q28)*
 - The below average score for this issue may be attributed to the fact that knowledge is used in decision-making implicitly, and therefore knowledge management as means of provision of the knowledge upon which decisions are based is not perceived as making a direct contribution to the speed and quality of decision-making. It may also be attributed to the fact that knowledge management programmes in the respondent organisations have an operational rather than a strategic focus, and therefore the impact on the speed and quality of decision-making is not so apparent.
- *Issue 2: Availability of knowledge at the right time to the right people increases organisation's agility (Q29)*
 - The above average score for this issue may be due to the fact that knowledge management programmes have made knowledge more available and accessible to those who need it, especially on a strategic level to ensure organisational agility. The availability of knowledge leads to increased organisational agility due to the fact that informed decisions can be made at the right time.
- *Issue 3: Knowledge management provides the organisation with knowledge strategic to the business (Q32)*
 - The high score attributed to the provision of knowledge strategic to the business may be attributed to the fact that it is extremely important to have knowledge strategic to the business to enable accurate and timely decision-making. This in

The role of knowledge management in eBusiness and customer relationship management

turn will lead to organisational agility. Most of the respondent organisations are in innovative industries that change at a tremendous pace, and therefore they need to be able to make business decisions continuously to ensure organisational agility and a competitive edge in the marketplace.

- *Issue 4: Knowledge is a corporate asset (Q34)*
 - The fact that there was some agreement amongst respondent organisations that knowledge is a corporate asset may be attributed to the fact that most of these organisations are knowledge intensive organisations and therefore extract a lot of value from knowledge. They are therefore in a position to understand the strategic value of knowledge. These organisations also operate in innovative industries where the utilisation of knowledge to innovate is prevalent. They are therefore more likely to see knowledge as a corporate asset that adds value.
- *Issue 5: Knowledge management is tied to the business strategy (Q32, Q33)*
 - The agreement of respondents that knowledge management is tied to the business strategy through the provision of knowledge strategic to the business and the role of knowledge management in identifying new business opportunities may be attributed to the fact that these organisations are operating in highly innovative, knowledge intensive and fast changing industries and therefore utilise knowledge as a corporate asset in decision-making and adaption to the marketplace.
 - Knowledge workers' perceptions differ from other staff on the role of knowledge management in identifying new business opportunities – they see it as more significant than other staff members. This may be attributed to the fact that knowledge workers are not aware of all opportunities identified by the business and therefore have a skewed perception. It may also be due to the fact that knowledge workers have a skewed perception of the proportion of their contribution to the opportunity identification due to a lack of understanding of the business.

10.2.9.4.b. Impact on organisations

- *Issue 1: Knowledge management increases the quality and speed of decision-making (Q28)*
 - The below average score for this issue will have a negative impact on organisations. Decision-makers will not be able to make accurate, informed decisions due to the lack of availability and accessibility to knowledge that assist in this process.

The role of knowledge management in eBusiness and customer relationship management

- *Issue 2: Availability of knowledge at the right time to the right people increases organisation's agility (Q29)*
 - The above average score indicates that for the respondent organisations, availability of knowledge leads to increased organisational agility due to the fact that informed decisions can be made at the right time.
- *Issue 3: Knowledge management provide the organisation with knowledge strategic to the business (Q32)*
 - Attaching importance to the provision of knowledge strategic to the business by knowledge management will impact these organisations positively. This will ensure that adequate processes as well as platforms and tools are put in place to ensure the flow of strategic knowledge to decision makers to ensure quicker time to market and adaption to market changes. It will also heighten the awareness of the importance of knowledge as corporate asset and knowledge management as critical management tool within respondent organisations.
- *Issue 4: Knowledge is a corporate asset (Q34)*
 - The impact of the agreement amongst respondents on knowledge being a corporate asset is that significant importance should be attached to knowledge and knowledge management on a senior management level. This may position knowledge management at the correct levels in these organisations, ensuring easier and more successful implementation and better utilisation of knowledge due to this positioning. It will also be easier to obtain sufficient funding and general buy-in for their knowledge management programmes.
- *Issue 5: Knowledge management is tied to the business strategy (Q32, Q33)*
 - The agreement amongst respondent organisations indicates that knowledge management is tied to the business strategy indicates that respondents view knowledge management as a strategic issue. This will once again impact the organisations as this will allow the positioning of knowledge management on the correct levels in the organisations and will ensure buy-in. This in turn will lead to easier funding and implementation of knowledge management programmes. The impact is also that knowledge management will be more closely tied to the organisations' customer relationship management and eBusiness initiatives, which are all part of business strategies.
 - The fact that knowledge workers have a perception that knowledge management has a larger role in business opportunity identification will impact the knowledge management programmes negatively as they may not develop to their full potential due to the perception of knowledge workers that they are delivering an adequate service.

The role of knowledge management in eBusiness and customer relationship management

10.2.10. Knowledge management as factor in quicker adoption of the eBusiness model

10.2.10.1. Overview

- In the average respondent profile, there is some satisfaction on the 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.
- From an industry perspective, the Financial Services industry had the highest score with a high level of satisfaction with the status quo. Financial Services was followed by Professional Services and IT, who showed some dissatisfaction with the current status, and Telecommunications, where severe problems exist.
- The perceptions of knowledge workers and other workers on this issue do not differ significantly, except for questions 35 and 37. 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), and other staff perceives knowledge management as playing a larger role in facilitating the flow of knowledge within organisational and geographical boundaries (Q37).

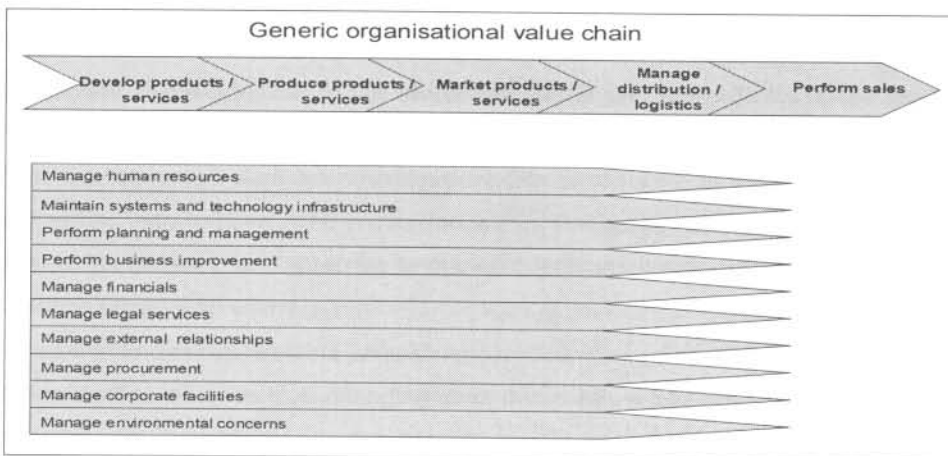


Figure 44. Areas of impact of knowledge management in adopting the eBusiness model

The role of knowledge management in eBusiness and customer relationship management

10.2.10.2. Conclusions

10.2.10.2.a. Possible influencing factors

There are a number of possible factors influencing knowledge management's role in the adoption of the eBusiness model:

- The above average score for this dimension indicates that knowledge management has contributed to the adoption of the eBusiness model. The researcher is of the opinion that this perception may be attributed to the fact that a lot of electronic knowledge sharing platforms have been made available over the last couple of years, within the boundaries of organisations, but also between different organisations. Examples are the use of extranets, which received a relatively high rating from respondents, as well as organisational websites. A lot of business transactions are also taking place electronically, e.g. account payments on the Internet. The researcher believes that the full potential of knowledge management as tool in adopting the eBusiness model has not reached its full potential, but agrees with the respondents that a lot of improvements have been made over the past few years. The implication is that there is still a lot of value to be extracted by organisations in utilising knowledge management in order to speed up the adoption of the eBusiness model in organisations.
- From an industry perspective, the Financial Services industry had the highest score with reference to the role of knowledge management in the adoption of the eBusiness model. This may be due to the fact that Financial Services organisations are knowledge intensive, i.e. would be more inclined to adopt the eBusiness model quicker than other industries. It may also be due to the fact that it is a very competitive industry that focuses on innovation. Telecommunications may have been slower to utilise knowledge management in the adoption of the eBusiness model due to the fact that the focus of cellular organisations were getting the basics of their businesses running smoothly, prior to focusing on areas such as eBusiness models which may at that point have been perceived as "nice to have". The implication is thus that some industries would, due to the nature of the industry, and also due to market conditions be more inclined to adopt the eBusiness model than others.
- The fact that 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, may be attributed to the fact that knowledge workers most probably have a better idea of what knowledge is available that can assist in the transition than other staff. The implication is that the change management role of knowledge management and the value thereof, as well as the availability of knowledge in this regard, need to be highlighted extensively in organisations adopting both knowledge management and eBusiness as business model.

The role of knowledge management in eBusiness and customer relationship management

- The fact that other staff perceive knowledge management as playing a larger role in facilitating the flow of knowledge within organisational and geographical boundaries than knowledge workers may be attributed to the fact that other staff may have a better understanding of the intricacies of day-to-day operations and the impact knowledge and knowledge management may have on it, than knowledge workers do. The implication is once again that knowledge workers should not be far removed from the day-to-day operations of the business, but should have as clear an understanding of it as other staff does and their work should be integrated into the business.

10.2.10.2b Impact on organisations

The impact of knowledge management in adopting the eBusiness model has a large impact on the whole of the organisational value chain, including core and enabling processes (see Figure 44).

On a strategic level knowledge management can deliver a role in providing and sharing knowledge electronically internally as well as externally, with customers and suppliers relating to core processes of the business, e.g. knowledge on product or service delivery, and customer knowledge. The organisation can therefore portray a knowledgeable image to the market, showing that it understands its customers' and suppliers' needs. Internally knowledge on market segments, as well as knowledge on products and services and associated processes can be shared successfully on an electronic basis, therefore allowing strategic decisions and adaptations to be made quickly and effectively. Employees are also enabled to handle the transition to the eBusiness model more effectively.

On an operational level, knowledge management can play a role in adopting the eBusiness model, by assisting in managing operational knowledge flows internal and external to the organisation, and to ensure access to applicable operational knowledge to staff, customers and suppliers as and when required. On an operational level, knowledge management can also assist in the adoption of the eBusiness model, by enabling the sharing of knowledge relevant to enabling processes, e.g. human resources and information technology management. An example would be to enable technology support staff to access knowledge on how to execute IT support tasks via technology in remote sites or other countries.

The role of knowledge management in eBusiness and customer relationship management

10.2.10.3. Issues: Knowledge management as factor in quicker adoption of the eBusiness model

- *Issue 1: Knowledge management assists the organisation in adapting its value chain to the eBusiness model (Q38)*
 - 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.
 - 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.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 2: Knowledge management allows staff to adjust to their new roles through knowledge that enables the transition (Q35)*
 - There is some satisfaction amongst respondents that knowledge management allows staff to adjust to their new roles through knowledge that enables the transition.
 - 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.
 - Knowledge workers perceive knowledge management as playing a larger role in allowing staff to adapt to their changing roles in the eBusiness environment than other staff does.
- *Issue 3: Knowledge management facilitates the implementation of the eBusiness model (Q36, Q37)*
 - There is some satisfaction amongst respondents on the role of knowledge management on the flow of knowledge across as well as within organisational and geographical boundaries.
 - 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

The role of knowledge management in eBusiness and customer relationship management

organisational and geographical boundaries, differs vastly amongst respondent organisations.

- 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 amongst respondent organisations.
- The perceptions of knowledge workers and other workers on this issue do not differ significantly on the extent to which knowledge management facilitates flow of knowledge across geographical and organisational boundaries (Q36), but other staff perceive knowledge management as playing a larger role in facilitating the flow of knowledge within organisational and geographical boundaries (Q37).
- *Issue 4: Knowledge management manages tacit knowledge in the eBusiness model where it is prevalent (Q27)*
 - Severe problems exist in translating tacit knowledge into explicit knowledge in the average profile of respondents (<50%).
 - 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 amongst respondent organisations.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 5: Knowledge management supports the different knowledge flows due to changed business processes (Q38)*
 - 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.
 - 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.

The role of knowledge management in eBusiness and customer relationship management

- The perceptions of knowledge workers and other workers on this issue do not differ significantly.
- *Issue 6: Knowledge management helps the organisation to cope with more knowledge due to explosion of richness and reach (Q39)*
 - 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.
 - The perceptions of knowledge workers and other workers on this issue do not differ significantly.

10.2.10.4. Conclusions

10.2.10.4.a. Possible influencing factors

- *Issue 1: Knowledge management assists the organisation in adapting its value chain to the eBusiness model (Q38)*
 - The fact that there is some agreement on this issue may be attributed to the fact that the respondent organisations implicitly understand that knowledge flow will change in a changed business model because a changed business model implies some new business processes. The responsible organisations have probably experienced these changes in their eBusiness and customer relationship management endeavours in the recent past. They therefore understand that knowledge management can support the changing processes by enabling the flow of knowledge within these processes in the value chain.
- *Issue 2: Knowledge management allows staff to adjust to their new roles through knowledge that enables the transition (Q35)*
 - The satisfaction amongst respondent organisations on this issue may be attributed to the fact that respondents indicated that knowledge management facilitates transparency in the organisation and has a smaller role in allowing change to take place. Staff may be adjusting to their new positions easier due to the fact that more knowledge is available through knowledge management programmes to assist them in understanding their new responsibilities and where they fit into the bigger picture of the organisation.
 - Other staff view knowledge management's contribution as less than knowledge workers do. This may be attributed to the fact that they have a better understanding of what is available and how it can be applied to other staff. It may also be attributed to the fact that knowledge workers may not have an adequate understanding of what these staff members need to adapt to their changing roles.

The role of knowledge management in eBusiness and customer relationship management

- *Issue 3: Knowledge management facilitates the implementation of the eBusiness model (Q36, Q37)*
 - The satisfaction expressed by respondent organisations may be attributed to the fact that the respondent organisations have implemented knowledge management platforms e.g. extranets, and they have thus experienced first hand that knowledge management assists in implementing the eBusiness model. They may also have experienced the change in knowledge requirements and knowledge flows due to the implementation of eBusiness concepts and can therefore draw a direct correlation between eBusiness and knowledge management. Most of these organisations are also knowledge intensive and may therefore have utilised knowledge as a corporate asset in all endeavours, including eBusiness.
 - The fact that other staff perceive the role of knowledge management in facilitating knowledge flow within organisational and geographic boundaries to be larger than knowledge workers perceive it to be, may be attributed to the fact that they have a better understanding of the value chains of the businesses and the flow of knowledge within these processes and therefore have a better understanding of the impact of the knowledge flow.
- *Issue 4: Knowledge management manages tacit knowledge in the eBusiness model where it is prevalent (Q27)*
 - The below average score of the respondent organisations may be attributed to the fact that there is an over supply of workers in the labour market and organisations know that they can easily replace workers and their knowledge. They therefore do not go to the trouble of trying to retain employees.
- *Issue 5: Knowledge management supports the different knowledge flows due to changed business processes (Q38)*
 - The fact that there is some agreement on this issue may be attributed to the fact that the respondent organisations implicitly understand that knowledge flow will change in a changed business model because a changed business model implies new business processes. The respondent organisations have probably experienced these changes in their eBusiness and customer relationship management endeavours attempted in the recent past. They therefore understand that knowledge management can support the changing processes by enabling the flow of knowledge within these processes in the value chain.
- *Issue 6: Knowledge management helps the organisation to cope with more knowledge due to explosion of richness and reach (Q39)*
 - The high level of agreement amongst respondents on this issue may be attributed to the fact that these organisations may feel more empowered to share,

The role of knowledge management in eBusiness and customer relationship management

harvest and leverage knowledge through the provision of tools, platforms, processes, performance measures and responsibility allocation relating to knowledge management.

10.2.10.4.b. Impact on organisations

- *Issue 1: Knowledge management assists the organisation in adapting its value chain to the eBusiness model (Q38)*
 - The fact that there is some agreement on this issue implies that these organisations understand that knowledge management can support the changing processes by enabling the flow of knowledge within these processes in the value chain. It could impact the organisations in the way they structure their knowledge bases, i.e. by structuring it in a way that supports the organisational value chain and its supporting processes, thereby supporting the execution of the business strategy. It also impacts the organisations as utilising their knowledge bases may assist in making the transition from traditional business to eBusiness quicker, smoother and less cumbersome.
- *Issue 2: Knowledge management allows staff to adjust to their new roles through knowledge that enables the transition (Q35)*
 - The fact that knowledge management assists staff in adjusting to their new roles through provision of knowledge impacts the speed, efficiency and effectiveness to the eBusiness model.
 - The fact that knowledge workers deem knowledge management's role to be larger than other staff does, means that knowledge management may not be utilised to its full potential impact at this point in time.
- *Issue 3: Knowledge management facilitates the implementation of the eBusiness model (Q36, Q37)*
 - The fact that knowledge management is perceived as playing a large role in implementation of the eBusiness model renders it of great importance to these businesses operating in the knowledge economy. The respondent organisations have clearly identified knowledge management as being of critical and strategic importance in the new economy and will therefore be more focused on ensuring maximum value is extracted from knowledge as a corporate asset.
 - The fact that other staff have a better understanding of the value chains of the businesses and the flow of knowledge within these processes and therefore have a better understanding of the impact of the knowledge flow will have a positive impact in the organisations as it will create a heightened awareness on the role and value in these organisations, and also on the way knowledge integrates with business processes in the organisational value chain.

The role of knowledge management in eBusiness and customer relationship management

- *Issue 4: Knowledge management manages tacit knowledge in the eBusiness model where it is prevalent (Q27)*
 - The below average score of the respondent organisations indicate that there are severe problems in retaining knowledge through conversion of tacit knowledge to explicit knowledge. The impact on these organisations is twofold. Firstly it means that if staff leaves the organisation, their knowledge may not easily be replaced and the knowledge and experience of the staff members may be lost to the organisation for good. The second impact is that if the organisations are aware of this, they may be paying a high premium in terms of salaries to try and retain individuals with specialist knowledge that is not easily replaceable.
- *Issue 5: Knowledge management supports the different knowledge flows due to changed business processes (Q38)*
 - The fact that there is some agreement on this issue means that these organisations understand that knowledge management can support the changing business processes by enabling flow of knowledge within these processes in the value chain. It could impact the organisations in the way that they structure their knowledge bases, i.e. by structuring it in a way that supports the organisational value chain and its supporting processes, thereby supporting the execution of the business strategy. It also impacts the organisations as utilising their knowledge bases may assist in making the transition from traditional business to eBusiness quicker, smoother and less cumbersome.
- *Issue 6: Knowledge management helps the organisation to cope with more knowledge due to explosion of richness and reach (Q39)*
 - The impact of this understanding is that the organisation is aware of the potential strategic value that knowledge can add to the business, but also the operational value in terms of more efficient search and retrieval of knowledge both internal and external to the organisation. It implies that knowledge management can prevent the organisations from drowning in a sea of knowledge by extracting those nuggets that are really relevant to their particular organisations.

10.3. Interpretation of and conclusions relating to the performance-importance matrix

For ease of reading, the appropriate figures in Appendix B relating to the performance importance matrix are reproduced here.

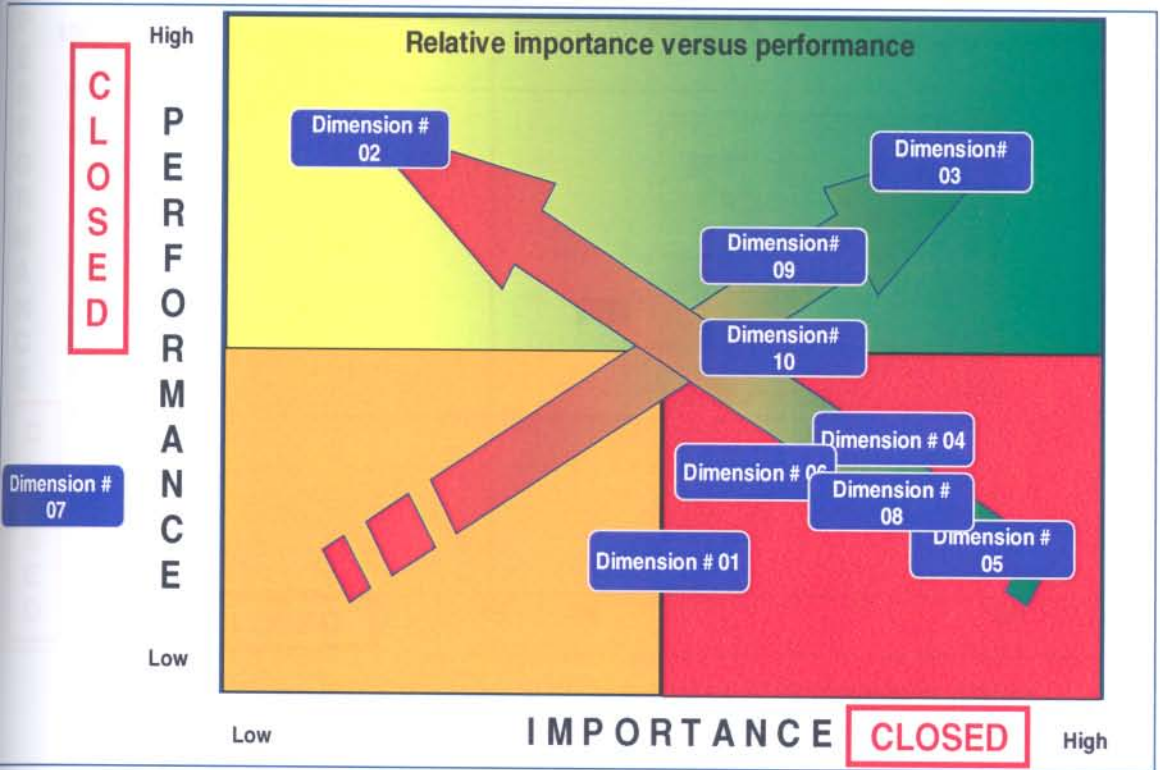


Figure B8. Relative importance versus performance of 10 dimensions

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

The role of knowledge management in eBusiness and customer relationship management

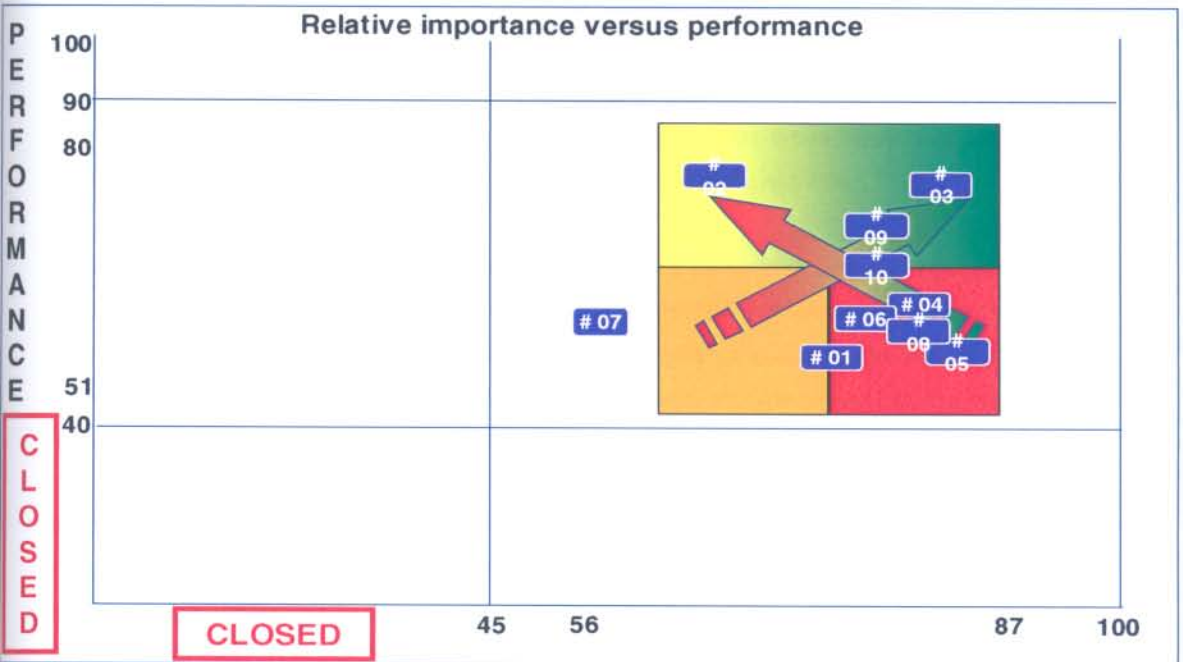


Figure B10. Relative importance versus performance of 10 dimensions in context

In Appendix B, the researcher notes that 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. 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. Some dimensions that are important, are, however, being performed well (Dimensions 3, 9 and 10). 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 B10).

The respondent organisations' knowledge management programmes are not performing well with regards to important knowledge management issues. This may be due to the fact that these organisations have never really prioritised which objectives or dimensions in their knowledge management programmes are the most or the least important, making focus virtually impossible. These dimensions can be difficult to implement, are very organisation and environment specific and haven't been widely implemented in South Africa, i.e. these

The role of knowledge management in eBusiness and customer relationship management

would be greenfields efforts to some extent that the organisations would have to undertake to implement these dimensions fully. This will have enormous time and cost factors associated with it, hence the fact that the organisations are focussing on those areas that are easy to implement and where return on investment is quantifiable and justifiable.

When looking at dimensions that are important and are performed well, the researcher is of the opinion that the focus on efficiency improvements through knowledge management is due to the fact that it is tangible and easily identifiable as being beneficial to the organisation. Well established and tested mechanisms, tools, platforms and processes exist in the market that enable relatively easy implementation for organisations. With reference to the role of knowledge management in setting the strategic direction of the organisation, it may be easy for the respondent organisations to understand the impact of knowledge and knowledge management on strategic planning and decision-making in the organisation, making it easier to design and implement knowledge feeds to the relevant parties requiring the knowledge for strategic planning. The mechanisms required to do this are not complex. As for the adoption of the eBusiness model, the respondents are all knowledge based organisations and most probably understand that the eBusiness environment will be more knowledge based than the traditional business environment. They have therefore made a more conscious effort to focus on knowledge management in their eBusiness endeavours.

Knowledge management as integration and change agent ranked low with reference to importance, and high with reference to performance. The high performance may be due to the fact that generic knowledge sharing as part of other daily change management activities such as management communications, may be seen as a knowledge management activity. An example may be that an organisation communicates a change related message through e-mail vs. posing this message on a discussion forum on a knowledge management system. It is thus not knowledge management in the true sense of the word at play here, but knowledge used as basis for other change management activities. The low importance can be attributed to these organisations not yet understanding the value of knowledge and knowledge management as integration and change agent in the organisation and that knowledge management relates to culture, which enables or disables change and integration. More attention should be given to create an awareness of knowledge management as integration and change agent.

The fact that knowledge management as factor preventing knowledge attrition wasn't seen *relatively* as either performing well or important, is indicative to the researcher that, due to the over supply of labour in South Africa, knowledge and skills are readily available in the market and can be easily replaced, therefore rendering the prevention of knowledge attrition an unimportant objective or knowledge management dimension.

However, it must be understood that the analysis as discussed with reference to closed questions have been analysed in relative terms. When looking at the results in actual terms (refer Figure B10), it is clear that all of the dimensions tested above average in terms of importance as well as performance.

10.4. Interpretation and conclusions relating to the DMAP open questions

In this section, Figures from Appendix B, applicable to each open question, have been reproduced to facilitate easier reading.

10.4.1. Critical requirements for knowledge flow across divisional, organisational and geographical boundaries

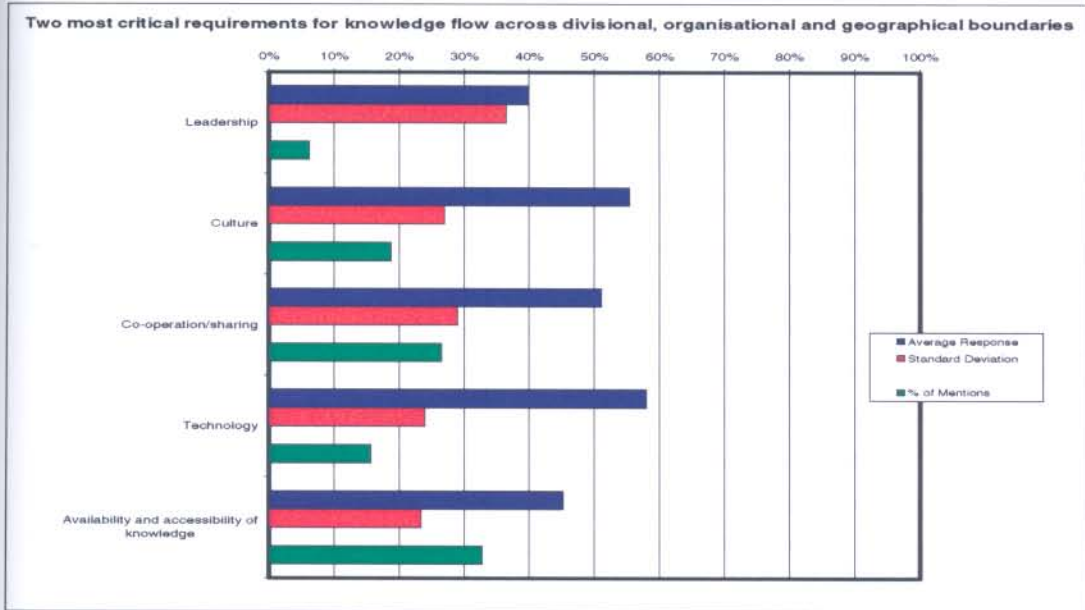


Figure B11. Two most critical requirements for knowledge flow across divisional, organisational and geographical boundaries

The 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. These two strategic themes correlate with the dimension of efficiency improvements obtained through knowledge management, where the access and availability of knowledge is the key factor. The results of this question may be indicative of the fact that advances in technology in the last couple of years provides easier and quicker access to higher quality knowledge than

The role of knowledge management in eBusiness and customer relationship management

before. The fact that knowledge is more readily available, e.g. through a single point of access, makes it easier for people to utilise knowledge to improve their efficiency, effectiveness and therefore productivity. Collective improvement in efficiency, effectiveness and productivity therefore has a positive impact on organisations.

The results of this question indicate the following:

- Leadership is not deemed important and is not widely prevalent in the organisations of the majority of respondents. A small percentage of the respondents rated it as having some importance and currently implemented to some extent, with the majority rating it of low importance with limited implementation. The fact that leadership received such a low score may be attributed to the fact that knowledge management is not a top of mind issue on the corporate agenda in South African agendas. It is not seen as a strategic issue and therefore does not receive management attention. The result of this is that knowledge management is currently being implemented on an operational level, rather than a strategic level with limited leadership contribution. The impact of this is that it is not necessarily seen as a priority issue in organisations and will therefore not receive adequate resources to ensure the utilisation and implementation of it to its full potential.
- Culture scored a relatively low percentage for current performance with reference to knowledge flow across boundaries - 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. A culture of knowledge management is, however, critical to enable knowledge sharing. The results of this question relate to the low score received in the closed question dimension on virtual communities and knowledge sharing. Due to a lack of knowledge sharing culture, knowledge sharing and the implementation of virtual communities are not successfully impacting the flow of knowledge. The impact of this finding is that organisations do not have an understanding of the importance of having a knowledge sharing culture in the organisation in enabling knowledge flows. Knowledge flow across boundaries will fail if there isn't a culture of knowledge sharing in the organisation and between organisations.
- Knowledge sharing and co-operation has been implemented and is seen as important to some extent. However, it is somewhat more important and has been implemented to a greater extent in some organisations than in others. These results may also be attributed to the fact that some of the respondent organisations are more knowledge intensive than others, as indicated in the previous section. Some are also more geographically spread than others, necessitating effective knowledge flow. The implication is that levels of knowledge sharing will differ in organisations depending on their level of knowledge management maturity with reference to issues such as leadership and culture, but also depending on the nature of the business that may range from extremely knowledge intensive to not extremely knowledge intensive.

The role of knowledge management in eBusiness and customer relationship management

Potential strategic themes were also identified for the open questions prior to drawing up the questionnaire. The open ended strategic themes were aimed at addressing those questions not covered by the closed questions, but relevant to the testing of the hypothesis. For this question, the anticipated strategic themes were:

- Leadership
- Communication
- Co-operation / sharing
- Channels / platforms
- Technology

Communication and the use of channels / platforms were not mentioned by respondents as being critical in the flow of knowledge across boundaries. This perception is confirmed in Question 43, where it is clear that communication is not seen as a primary tool for knowledge sharing or knowledge flow. The fact that channels / platforms were not mentioned explicitly may be due to the fact that channels / platforms were seen as part of technology and the efficiency that technology creates, or it can be tied back to the closed question dimension on the use of virtual communities and knowledge sharing, which received a relatively low score by respondents with reference to performance and importance. It is therefore clear that the anticipated strategic dimensions as defined by the researcher according to the value proposition of knowledge management in eBusiness and customer relationship management in Chapter 8, differed only slightly in the perception of the respondents.

10.4.2. Most prevalent performance measurements relating to knowledge management in your organization



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

The role of knowledge management in eBusiness and customer relationship management

The survey indicated a below average rating for the performance of the respondents with reference to specific knowledge management performance measures. This may be attributed to the fact that knowledge management is viewed as an integral part of day-to-day business and not seen as something that should be measured separately. On the one hand, this is a positive factor, showing that knowledge management is seen as integrated with the business. On the other hand, it has a negative impact due to the fact that it is not deemed to be making a significant contribution to the business, else it would have been measured alongside other specific areas in the business, e.g. other areas that impact efficiency or productivity. The impact of low performance in the implementation of performance measures for knowledge management is that the respondent organisations do not have a clear understanding of the value added by knowledge management. They also do not have a clear understanding of the impact of changes made to the knowledge management programme as it cannot be measured. The lack of quantifiable return on investment, in turn, may be the reason why knowledge management is not a top of mind issue on the corporate agenda, as stated in the analysis of Question 40.

The results of this question indicate the following:

- The fact that a large number of respondents indicated that knowledge management activity was implicitly measured as part of general business performance of staff results in knowledge management not being explicitly measured and rewarded, making it more difficult to create a knowledge sharing culture and mindset.
- In a very small percentage of organisations, no explicit knowledge management measures exist, i.e. there are no knowledge management measures. The implication for these organisations are that they will find it difficult to demonstrate the value that knowledge management adds to the business, rendering it a non-value adding activity, that in the minds of management, is not worthy of leadership attention on either a strategic or operational level.
- Weak percentage scores were allocated with a high level of agreement to current performance of knowledge submissions, knowledge utilisation and knowledge availability as performance measures. Both knowledge utilisation and submissions received 28-31% of mentions, indicating that it is of some importance to the organisations. The results show that the respondent organisations have limited ways of measuring the effectiveness of their knowledge management programmes. Once again it will be difficult for these organisations to quantify the value that they add to the business.

Potential strategic themes were also identified for the open questions prior to drawing up the questionnaire. The open ended strategic themes were aimed at addressing those questions not covered by the closed questions, but relevant to the testing of the hypothesis. For this question, the anticipated strategic themes were:

The role of knowledge management in eBusiness and customer relationship management

- Participation / behaviour
- Training
- Understanding of knowledge management
- Submissions to databases / measurable knowledge sharing
- Intellectual capital building

The anticipated strategic themes differed somewhat from the respondents' perceptions. Submissions were mentioned in both sets of data. In the anticipated themes, participation / behaviour can be linked to some extent to utilisation of knowledge in the respondents' data. However, training, understanding of knowledge management and intellectual capital building did not feature in the responses at all. This is critical, as in quite a number of questions it was evident that a lack of understanding of the value proposition of knowledge management leads to inefficiencies related to knowledge management and business operations. It is, however, not understood by the respondents that this has a significant impact and is therefore not measured. Training in knowledge management principles and philosophy and in using the knowledge management system and services were not mentioned. This is critical to enable the understanding of the value proposition of knowledge management in the organisation. It is also easy to measure. Intellectual capital building is also not measured, which indicates a relative focus on sharing knowledge that is currently available in the respondent organisations, rather than building on the current knowledge base or filling gaps in the knowledge base. This may be detrimental to the growth of these knowledge management programmes as there is a lack of focus on building the knowledge base as a strategic corporate asset.

The role of knowledge management in eBusiness and customer relationship management

10.4.3. Most essential leadership elements in knowledge management in your organization

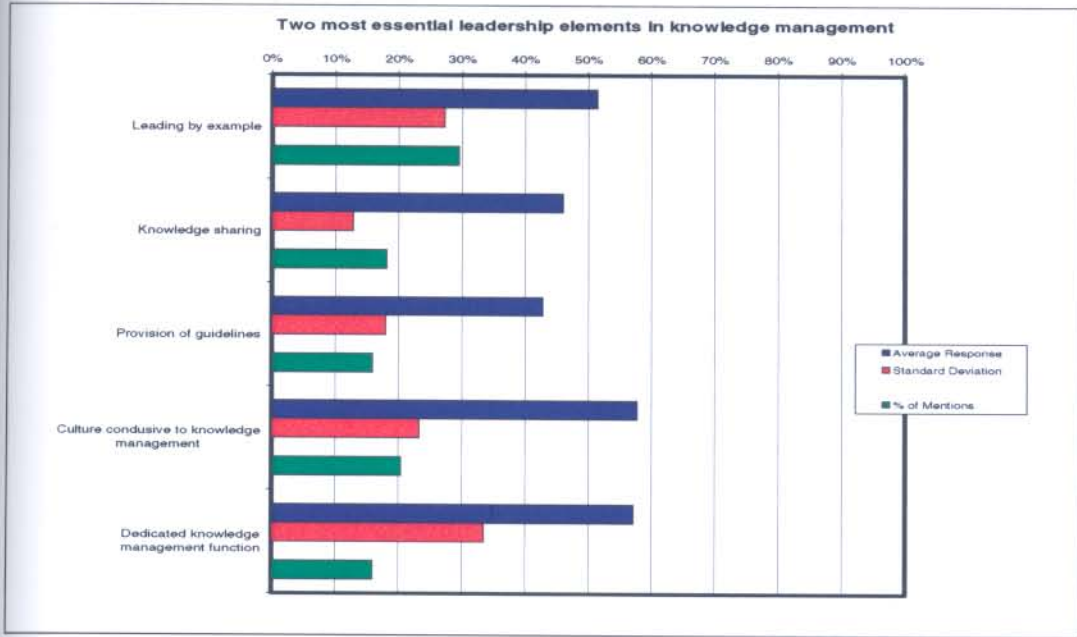


Figure B13. Essential leadership elements in knowledge management

The survey indicated a below average rating for the performance of the respondents with reference to specific knowledge management leadership issues. The fact that leadership received such a low scoring may be attributed to the fact that knowledge management is not a top of mind issue on the corporate agenda of South African organisations. It is not seen as a strategic issue and therefore does not receive management attention. The result of this is that knowledge management is currently being implemented on an operational level, rather than a strategic level. Knowledge management is not seen as a priority issue in organisations and will therefore not receive adequate resources to ensure the utilisation and implementation of it to its full potential. This can be tied back to the closed question dimensions that received a low scoring, e.g. pooling of expertise. It may be that the platforms, tools and processes to enable pooling of expertise haven't been developed due to a lack leadership leading to a lack of funding, human resources, etc, as well as due to a lack of priority attention. The impact of this is that knowledge management in these organisations will find it difficult to reach its full potential, as knowledge is not yet seen as of full strategic importance to the business.

The results of this question indicate the following:

- Culture conducive to knowledge management as leadership element scored the highest with some agreement between respondents on performance. It is, however not a top of mind issue for management to create a knowledge sharing culture though it is critical to enable knowledge sharing. The results of this question relate to the low score received in the closed question dimension on virtual communities and knowledge sharing. Due to a

The role of knowledge management in eBusiness and customer relationship management

lack of knowledge sharing culture, knowledge sharing and the implementation of virtual communities are not successful. The impact of this finding is that organisations do not have an understanding of the importance of having a knowledge sharing culture in the organisation in enabling a knowledge management programme. Knowledge management programmes will fail if there isn't a culture of knowledge sharing within the organisation and between organisations.

- A dedicated knowledge management function is deemed by some organisations as an important leadership element and some have implemented the concept, whilst others have not gone that route at all. This may be attributed to the two viewpoints of knowledge management, the first being that it is everyone's responsibility and should be totally integrated with the business, and the second being that a dedicated knowledge management function is required to ensure leadership focus. The researcher is of the opinion that the implication of these results is that culture as well as leadership and management style may determine which of the two alternatives are chosen. Neither is more correct or applicable than the other, but is dependent on the specific organisational situation. The researcher is of the opinion, however, that given the overall lack of leadership as indicated in previous questions, a dedicated knowledge management function could provide the respondent organisations with some focus and control in their knowledge management programmes.
- Leading by example is ranked second most important leadership element and is seen by all respondents as fairly important, but the high standard deviation shows that respondents differ on the current performance of this leadership element with reference to knowledge management. The fact that leading by example is lacking in some of these organisations may be attributed to the fact that knowledge management is not yet viewed by South African corporates as a top of mind issue. Leaders therefore do not focus on walking the talk in day-to-day operations. The impact is that knowledge management lacks focus and is not currently demonstrated as adding value to the business. Leaders are not entirely convinced of the strategic value that knowledge management can add *in practice*, although there may be some understanding of the value on a theoretical level, i.e. knowledge management is not being implemented to its full potential due to a lack of focus attributed to a lack of understanding of the value proposition of knowledge management.
- Knowledge sharing and provision of guidelines are the two leadership elements that respondents have the most agreement on. The scores for current performance are still below expectation, and the importance is not deemed as high. Once again the researcher is of the opinion that this may be attributed to the fact that, because leaders are not entirely convinced of the value that knowledge management can add to the business, it is not seen as strategic to the business, and therefore the provision of guidelines and knowledge sharing itself is not a focus area of these leaders. On the other hand, it may

The role of knowledge management in eBusiness and customer relationship management

also be that leaders are setting the culture of non-sharing in the organisation through their behaviour, and it is therefore not seen as important by their peers resulting in implementation below expectation.

Potential strategic themes were also identified for the open questions prior to drawing up the questionnaire. The open ended strategic themes were aimed at addressing those questions not covered by the closed questions, but relevant to the testing of the hypothesis. For this question, the anticipated strategic themes were:

- Operational ownership of knowledge management, e.g. knowledge manager
- Top management support
- Dedicated team
- Provision of guidelines
- Leadership communication and general visibility

Operational ownership and a dedicated team can be related to respondents' dedicated knowledge management function strategic theme. Respondents also mentioned provision of guidelines. Top management support and leadership communication and general visibility can be related to leading by example. The only strategic theme that was anticipated but not mentioned by respondents, is culture. This may be due to the fact that employees do not see culture as a factor determined by leadership in an organisation. This level of understanding of the drivers of culture, can make it difficult to change culture to enable or support knowledge management.

10.4.4. Role of communication in knowledge management

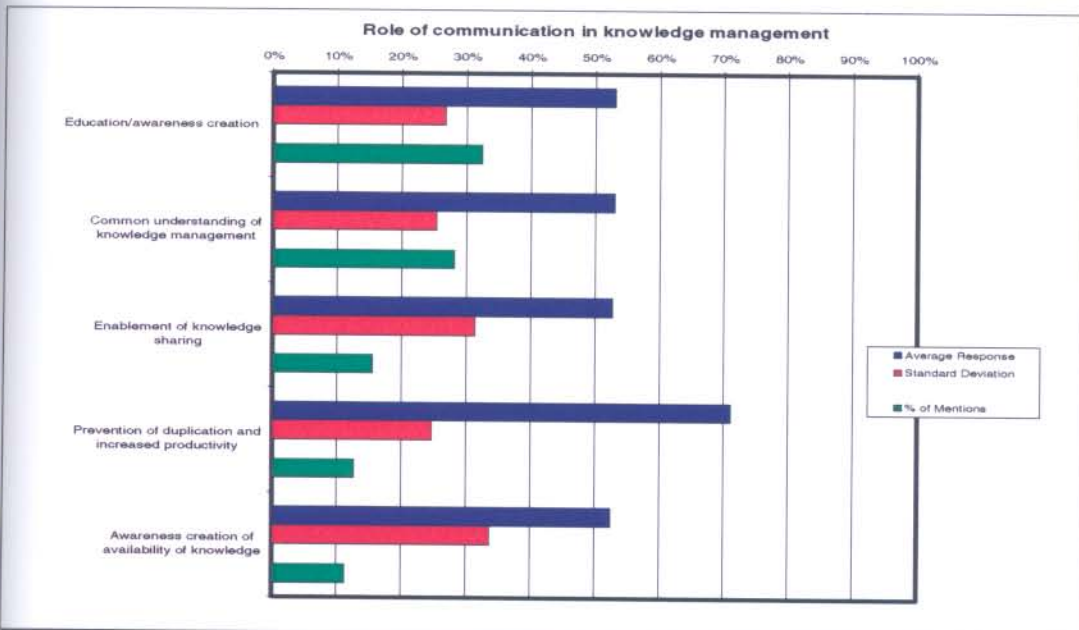


Figure B14. Role of communication in knowledge management

The role of knowledge management in eBusiness and customer relationship management

The survey indicated a below average rating for the performance of the respondents with reference to the role of communication in knowledge management. The researcher is of the opinion that this may be due to the fact that communication in general in these organisations may not be effective and that communication on knowledge management may suffer as a consequence. It may also be attributed to the fact that knowledge workers assume that other staff members understand all platforms, processes, tools and techniques relating to knowledge management and therefore do not communicate adequately on these issues to other staff members.

The results of this question indicate the following:

- Communication is currently applied satisfactorily within the knowledge management environment to ensure increased productivity and to prevent duplication. Although currently performed, it is not deemed as important. From the results the conclusion can be made that the main reason for communicating on knowledge management is to achieve work efficiency and to increase productivity. This may be attributed to the fact that efficiency improvements are currently the main focus of knowledge management in the respondent organisations. Communication in knowledge management is not, however, seen as the most important tool to enhance efficiency compared to other tools, e.g. technology platforms have been implemented which are more effective. The implication is that communication is not utilised to its full potential to enable knowledge management in organisations.
- There are large differences amongst respondent organisations in the awareness creation of the availability of knowledge. Awareness creation of the availability of knowledge is not of primary importance in communication in the knowledge management arena. This may be attributable to the fact that the closed question dimension on efficiency improvements through knowledge management indicated that there is some satisfaction with reference to the use of a single point of access to the knowledge base, and with reference to the availability and navigability of knowledge in the organisations. Availability of knowledge is thus promoted through the single point of access and availability of navigation tools enabling awareness, rather than was traditional communication to make users aware of the availability of knowledge. Once again the impact is that communication is not used to its full potential with reference to creating awareness of the availability knowledge.
- Enabling of knowledge sharing is not perceived as a primary role of communication in the knowledge management arena. This is attributable to the fact that the organisations' knowledge management programmes most probably have specific platforms for knowledge sharing, that are more effective than traditional communication, e.g. virtual communities and discussion groups. Communication as enabler of knowledge sharing has a high standard deviation indicating major differences in different organisations, i.e.

The role of knowledge management in eBusiness and customer relationship management

some of the respondents used traditional communication to share knowledge to a greater extent than others.

- Most organisations deem awareness creation of knowledge management as having some role in communication in the knowledge management arena. The implication is that the role of traditional communication in creating awareness of knowledge management should be a greater area of focus than it currently is to ensure better value. General awareness creation of knowledge management's high standard deviation suggests that organisations differ in the scale of application of this element. This may be attributed to the unique cultures of the organisations and their generic means of communicating.
- Most respondents indicated communication as having some role in gaining a common understanding of knowledge management, suggesting that it should receive more attention in future. The high standard deviation regarding gaining a common understanding of knowledge management suggests that organisations differ in the degree of practical application of this element as part of communication. This may be attributed to the fact that some organisations perceive other tools and means, e.g. training, as more effective in gaining a common understanding of knowledge management, or due to the fact that communication in general in the organisation is poor.

Potential strategic themes were also identified for the open questions prior to drawing up the questionnaire. The open ended strategic themes were aimed at addressing those questions not covered by the closed questions, but relevant to the testing of the hypothesis. For this question, the anticipated strategic themes were:

- Transparency
- Knowledge on what is available
- Timeous access
- Prevention / reduction of duplication
- Better knowledge of the organisation

The only two strategic themes that concurred were knowledge on what is available and prevention of duplication. Respondents did not mention transparency, providing a better understanding of the organisation and timeous access to knowledge through communication of availability of knowledge at the right time, as factors. The researcher is once again of the opinion that traditional communication is not the means for enabling the above-mentioned issues. If one looks at the results of Question 9, for example, relating to the role of knowledge management in providing transparency in the business, respondents rated it quite high, indicating that knowledge management plays a role, but in conjunction with this open question it is clear that transparency is achieved through other knowledge management tools or platforms other than traditional communication. The same principle applies to the other issues.

10.4.5. Most critical operational efficiencies effected by knowledge management

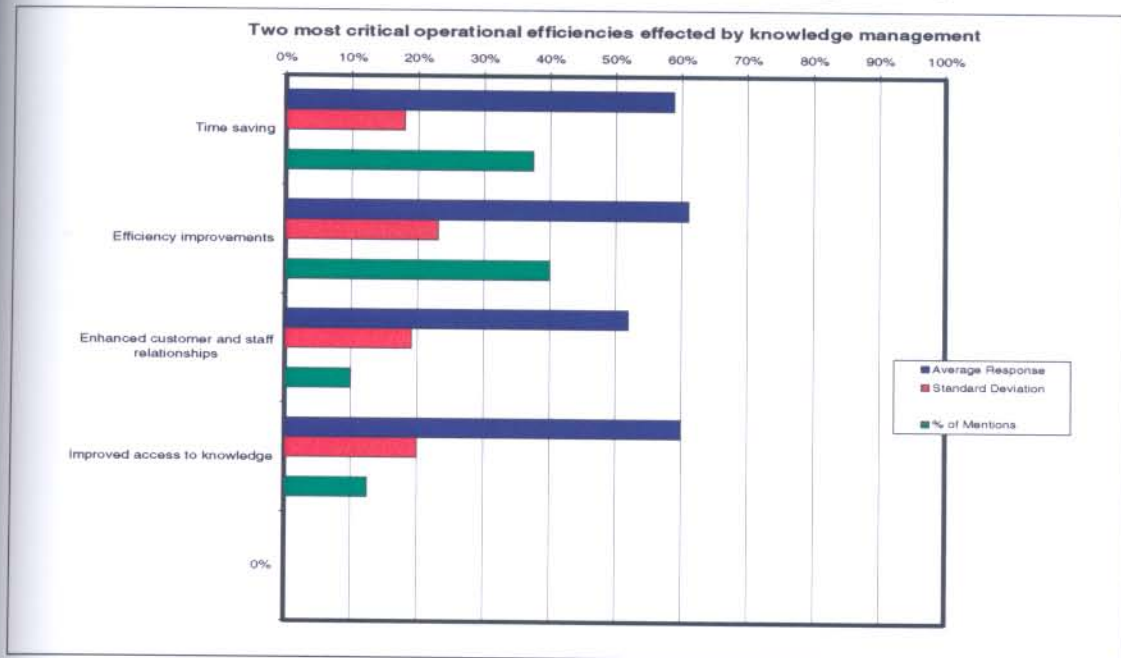


Figure B15. Two most critical operational efficiencies effected by knowledge management

The survey indicated agreement on a below average rating for the performance of the respondents with reference to critical operational efficiencies in knowledge management.

Firstly, the difference in perception in the rating in the closed question on efficiency improvements and this open question, is attributed to the fact that issues the researcher define as operational efficiencies with reference to knowledge management differs from respondents views in this open question. The researcher defines operational efficiencies achieved in much more specific terms, such as providing navigation tools for quicker and more efficient searching, providing a single point of entry, etc. (refer 10.2.3.), whilst the respondents grouped efficiency improvements into four very broad categories, namely time saving, efficiency improvements, enhanced customer and staff relationships and improved access to knowledge.

The results of this question indicate the following:

- A score of 62% for efficiency improvements (defined as working faster and smarter), with some agreement amongst respondents, shows that respondents are not entirely satisfied with the current performance of knowledge management in creating efficiency improvements. It is unclear what this may be attributed to, but the researcher is of the opinion that knowledge management in these organisations may e.g. have a bigger impact or focus in some areas or divisions than in others, thus creating a perception that some improvement can be made. The other fact that it may be attributed to is that

The role of knowledge management in eBusiness and customer relationship management

knowledge management per se is not achieving adequate attention in the organisation as a whole, and therefore leaves room for improvement. Respondents, however, view the issue as important. Although efficiency improvements have not yet been optimised, it is seen as important and therefore leaves room for improvement in the respondent organisations.

- Improved access to knowledge was scored at a level of some dissatisfaction, with reasonable agreement amongst respondents. This finding can be tied to the fact that problems are experienced in the utilisation of virtual communities and knowledge sharing (dimension 1 of the closed questions), as well as the pooling of expertise (dimension 5 of the closed questions), both dimensions which received relatively low scores. It may be attributed to the fact that knowledge management has not been fully developed in these organisations and is therefore not providing adequate tools, technologies and platforms to enable quick and efficient access to knowledge. Although access to knowledge has not yet been optimised, it is seen as important and therefore leaves room for improvement in the respondent organisations. It also indicates that the potential value of knowledge in the business is not extracted.
- Time saving is seen as a critical operational efficiency achieved through knowledge management, even though the current performance is perceived as inadequate. Current time saving through the use of knowledge management tools and techniques may currently not be optimised due to the fact that knowledge management is a relatively new concept and all staff may not be equally trained to use knowledge management systems, or they may not even be aware of the value that it can add in saving time in their day-to-day work practices. The fact that it is seen as critical to the business implies that this should be a focus area for respondent organisations in extracting maximum value from their knowledge management programmes and to ensure more efficient customer service and therefore improved customer relationships.
- Enhanced customer and staff relationships received a relatively low score for current performance with agreement amongst respondents. Knowledge management therefore plays only a limited role in enhancing staff and customer relationships. It is also not really a top of mind issue currently. The researcher is of the opinion that this may be due to the fact that employees do not make the connection between access and availability of knowledge with improved internal and external service and therefore improved customer and employee relationships. Staff is not aligned with reference to the potential value that knowledge can add in these relationships. The impact is that maximum value of knowledge management is not unlocked in the organisations, and therefore their service quality and culture is impacted negatively. Creating an understanding of the value proposition of knowledge management in improving customer and employee relationships should therefore be a future focus area in respondent organisations, to ensure value creation.

Potential strategic themes were also identified for the open questions prior to drawing up the questionnaire. The open ended strategic themes were aimed at addressing those questions not covered by the closed questions, but relevant to the testing of the hypothesis. For this question, the anticipated strategic themes were:

- Process efficiency
- Prevention of duplication
- Improved relationship management
- Improved and increased knowledge sharing
- Management of knowledge attrition

Improved and increased knowledge sharing relates to improved access to knowledge as stated by respondents, whilst process efficiency relates to efficiency improvements as mentioned by respondents, and improved relationship management relates to enhanced customer and staff relationships as mentioned by respondents. Prevention of duplication can indirectly be linked to time saving as mentioned by respondents. Management of knowledge attrition was not mentioned at all by respondents. This is clearly not a top of mind issue for respondents, as indicated in the dimension on knowledge attrition in the closed questions.

This means, however, that organisations can lose a lot of knowledge strategic to the organisation. This issue needs to receive a lot more attention from management in future to ensure that knowledge is retained by the organisations, thus extracting maximum value.

10.4.6. Most critical strategic efficiencies effected by knowledge management

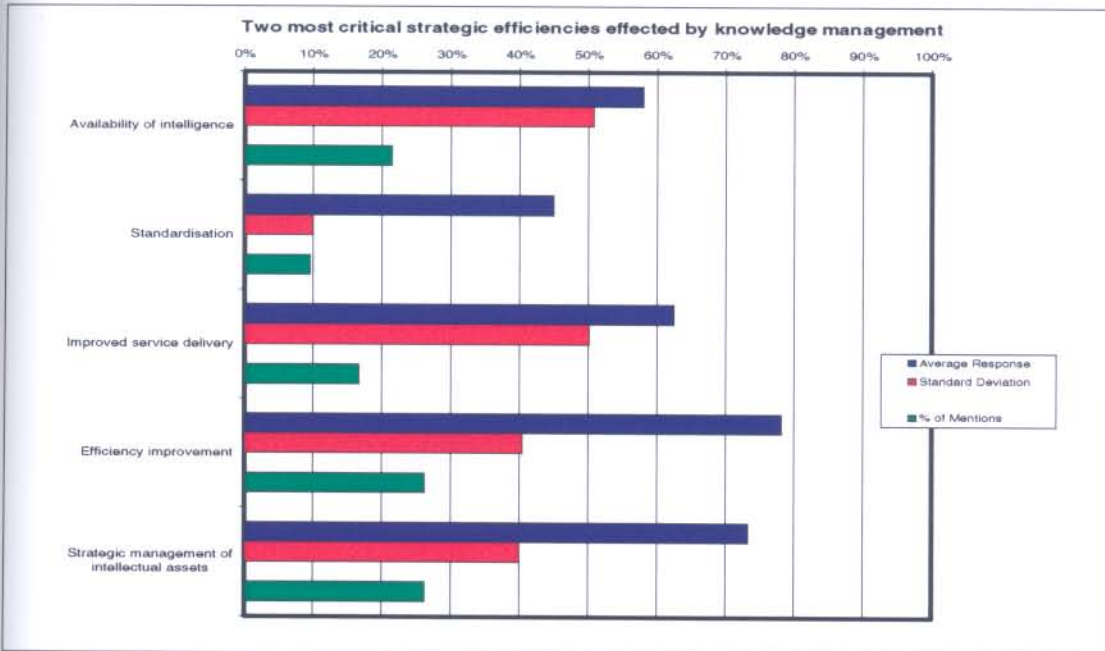


Figure B16. Two most critical strategic efficiencies effected by knowledge management

The role of knowledge management in eBusiness and customer relationship management

The survey indicated an average rating for the performance of the respondents with reference to critical strategic efficiencies in knowledge management. The results indicate a slightly lower score than the closed question dimensions on knowledge management's role in organisational agility, in setting organisational strategic direction and the adoption of the eBusiness model. The average rating may be attributed to the fact that South African organisations have recently become aware that they are operating in the knowledge economy and that knowledge is an asset as important as labour, capital or land. Due to this increased awareness, these organisations are extracting some value from knowledge available to them, more than before. This may also be due to the fact that, with the advent of technology and management systems, more knowledge is available to them on a global basis to extract value from. The impact is that South African companies are waking up to the fact that knowledge can provide them with a competitive edge in terms of determining of strategic direction, and are therefore standing on the brink of a new era where knowledge and the access to and management thereof will become the main differentiating factor for businesses. The realisation of the value of knowledge and knowledge management has, however, only been implemented or realised on a limited scale, and therefore a lot of potential for future exploitation exists. It is, however, also interesting to note a high discrepancy in opinion amongst respondents, indicating the performance being high in some respondent organisations, and low in others. This may be due to the fact that some of the respondent organisations are more knowledge intensive than others.

The results of this question indicate the following:

- Current performance with reference to strategic efficiency improvements (e.g. faster and more effective decision-making) had a high average score, but there is some disagreement amongst respondents of the degree of current performance. This may be due to the fact that some of the respondent organisations are more knowledge intensive than others, and were therefore quicker to realise the strategic impact of knowledge on their businesses, thus affecting the level of current performance. Strategic efficiency improvements were indicated as having some importance. Both the current performance and importance rating of the organisations with reference to strategic efficiencies indicate that the strategic value of knowledge and knowledge management has not yet been fully understood by the respondent organisations, or has not achieved the focus it deserves. Organisational agility can be improved vastly if this aspect receives more attention and gains more focus.
- Strategic management of intellectual assets also obtained a high score, but it is more important to some respondents than others. Respondents indicated relative importance of strategic management of intellectual assets. Once again, this may be due to the fact that some of the respondent organisations are more knowledge intensive than others, and were therefore quicker to realise the strategic impact of knowledge on their businesses,

The role of knowledge management in eBusiness and customer relationship management

thus affecting the level of current performance. Strategic management of intellectual assets were indicated as having some importance. Both the current performance and importance rating of the organisations with reference to strategic management of intellectual assets indicate that the strategic value of knowledge and knowledge management has not yet been fully understood by the respondent organisations, nor has it achieved the focus it deserves. Organisational agility can be improved vastly if this aspect receives more attention and gains more focus.

- Improved service delivery due to knowledge management leaves room for improvement according to the respondents. In some organisations this is achieved in practice, whilst in other organisations it is not the case at all. This may be due to the fact that most organisations have not yet fully implemented formalised customer relationship management programs through which customer knowledge can be used to improve service delivery. It is therefore difficult to fully understand the impact of knowledge management on the service delivery. Improved service delivery is not deemed as significant, also indicating that employees do not understand the value that knowledge can add in building and improving customer relationships. This is an area of potential improvement in future to ensure value extraction from knowledge in order to improve organisational efficiency in delivering products and services to the market.
- Availability of intelligence leaves room for improvement in this area. It has been implemented by some organisations and not at all or to a lesser extent by others. This may be due to the fact that most organisations do not yet have highly sophisticated knowledge management systems that, in conjunction with business intelligence systems, can deliver intelligence to the organisation. Some importance is attached to the availability of intelligence, which indicates this as an area of future focus for the respondent organisations to ensure organisational agility.
- Standardisation was the only theme on which there was significant agreement and it received an unsatisfactory score of 45%. This may be due to the fact that respondent organisations may have different knowledge management endeavours in the business that are not integrated. It may also be due to the fact that formal standards have not been set as yet within the knowledge management programmes. It is also not perceived as important by the respondents. Standardisation is thus not viewed as critical, although one of the principles of knowledge management is standardisation to some extent. This may therefore indicate that there is a lack of understanding on the philosophy of knowledge management, which needs to be rectified in the future.

Potential strategic themes were also identified for the open questions prior to drawing up the questionnaire. The open ended strategic themes were aimed at addressing those questions not covered by the closed questions, but relevant to the testing of the hypothesis. For this question, the anticipated strategic themes were:

The role of knowledge management in eBusiness and customer relationship management

- Management of knowledge as strategic asset
- Efficient decision-making
- Increased organisational agility
- Knowledge strategy assists in execution of business strategy
- Increases organisational capacity to expand customer base and global reach

The only strategic theme that was identical was the theme on management of knowledge as strategic asset, which concurred with strategic management of intellectual assets as mentioned by respondents. Respondents were not able to focus on true strategic issues, which may be attributed to the positions of the respondent individuals representing their respective organisations. The respondents were more operationally focused when responding to the questionnaire, although some of their strategic themes had some strategic elements to it. It did not, however, focus on increased organisational agility, efficient decision-making, increased organisational capacity and reach and support in the execution of the business strategy, which were identified by the researcher in Chapter 8 as part of the value proposition of knowledge management in eBusiness and customer relationship management. It does, however, indicate a current operational focus on knowledge management and reflects the position of knowledge management in the business.