The role of knowledge management in eBusiness and customer relationship management

DIVISION C

OVERVIEW: CHAPTERS 6, 7 & 8

In Chapter 6 the **drivers** for knowledge management, eBusiness and customer relationship is examined in detail. For the purpose of this study a driver is defined as *a catalyst for action*. The chapter is therefore devoted to obtain an understanding of what the catalysts are for knowledge management, eBusiness and customer relationship management in organisations.

In Chapter 7 the **critical success factors** of knowledge management, eBusiness and customer relationship management are examined. For the purpose of this study, critical success factors are defined as *those factors that are essential to the successful implementation and sustained operation of knowledge management /eBusiness / customer relationship management within organisations*. The chapter is therefore devoted to obtain an understanding of what drives the successful implementation and maintenance of knowledge management, eBusiness and customer relationship management in organisations.

In Chapter 8 the **value proposition** of knowledge management, eBusiness and customer relationship management is discussed. For the purpose of this study, a value proposition is defined as *the value that knowledge management, eBusiness or customer relationship management adds to an organisation on strategic and operational level*. The chapter is therefore devoted to obtain an understanding of the advantages, i.e. the value, that these concepts offer organisations.

Chapter 8 forms the hypothesis of the study, which will subsequently be tested with an electronic DMAP survey

6. DRIVERS OF KNOWLEDGE MANAGEMENT, eBUSINESS AND CUSTOMER RELATIONSHIP MANAGEMENT

The researcher defines drivers as catalysts for the implementation of knowledge management, eBusiness and customer relationship.

6.1. Knowledge management drivers

6.1.1. Knowledge is a commodity in the new economy

Knowledge is recognised as a commodity in the knowledge economy. Managers will increasingly be judged by how they add value to the organisation by retaining and increasing the capital implicit in their customer base, infrastructure and people (Powell, 2000, p.63). "If the market value of a company is dependent on its intellectual capital, then at least as much senior executive attention should be placed on managing intellectual assets, especially the human capital component, as is placed on physical and financial assets" (Caldwell, 2001).

According to the researcher, knowledge is seen as a commodity that can lead to competitive advantage. It therefore necessitates being managed as such to derive the most value from it through adequate leverage. According to Havens & Knapp, 1999), knowledge is many companies' product.

Due to the fact that knowledge is seen as an organisational commodity, protection against external leakage of organisational knowledge is a driver for knowledge management (Earl & Scott, 1999).

6.1.2. Knowledge attrition

Employees change jobs more readily in today's working environment. When they leave, they take their knowledge and experience with them, leading to knowledge attrition for the organisation (Caldwell, 2001; Hargaddon & Sutton, 2000; Mudge, 1999). According to the researcher, organisations are now focusing on managing the knowledge through knowledge management programmes and systems, rather than getting employees to stay with the organisation.

6.1.3. Knowledge management provides competitive advantage

Knowledge is a necessary and sustainable source of competitive advantage. In an era characterised by uncertainty, companies that consistently create new knowledge, disseminate

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it to all in the organisation and build it into products and services, are competitive (Earl & Scott, 1999; Young, 2001).

Knowledge provides the organisation with a competitive advantage as it allows the organisation to solve problems and seize opportunities (Earl & Scott, 1999; Parlby & Taylor, 2000; Zack, 1999). Organisations that manage knowledge can evaluate core processes, capture insights about what they find, combine their skills and experiences, innovate and apply new ideas quickly (Parlby & Taylor, 2000).

"Competitive success will be based less on how strategically intellectual capital is managed – from capturing, coding, disseminating information, to acquiring new competencies through training and development, to re-engineering business processes" (Bontis, 1996).

6.1.4. Knowledge management contributes to more effective decision-making

Knowledge is needed for more effective and efficient decision-making (Ernst & Young, 1999e; Yu, 2001). Decisions in today's world are taken under tremendous pressure and in short time frames (Semple, 2000, p.33). "Strategic decision making depends on predicting what the competition will do or on knowing something better than or ahead of them. The ability to predict market developments and assimilate new ideas is one of the bases of innovation" (Parlby & Taylor, 2000). Decision making performance may be impacted because the best know-how is not available to those making the decisions when and where they need it (Parlby & Taylor, 2000).

According to the researcher, many organisations are implementing knowledge management to ensure that these decision makers have adequate and accurate knowledge at their fingertips to ensure good quality decision-making.

6.1.5. Internet, improved telecommunications and technology

Customers generate a wealth of information and knowledge as they move around the Internet (Hagel & Rayport, 1997b). According to the researcher, organisations are driven to implement knowledge management in order to harvest, organise, analyse and leverage this knowledge.

Dramatic changes in the way of working and developments in telecommunications and technology have made knowledge management increasingly important (Morello & Caldwell, 2001; Mudge, 1999; Parlby & Taylor, 2000; PricewaterhouseCoopers, 1999a; Torres, 1999). Most organisations have high-speed networks and telecommunications infrastructure, which enable quick and efficient knowledge sharing. This leads to the requirement of organisations

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to manage the wealth of knowledge that is travelling through these high-speed networks and telecommunications technologies.

6.1.6. Organisational and geographical distribution

Organisations are increasingly working in a distributed environment. Knowledge is often fragmented within the organisation (Zack, 1999). Without knowledge management, knowledge sharing is not effective, mostly taking place in areas that are closest to one another in terms of physical proximity (Hargaddon & Sutton, 2000; Martiny, 1998; PricewaterhouseCoopers, 1999e).

According to the researcher, organisations implement knowledge management to facilitate the creation, sharing, harvesting and leveraging of knowledge across geographical as well as organisational boundaries, as well as to ensure integration between these fiefdoms.

6.1.7. Collaboration

Collaboration is becoming more prevalent due to the Internet and eBusiness, necessitating platforms for collaboration and knowledge sharing across geographical and organisational boundaries (Mudge, 1999).

According to the researcher, organisations are compelled to implement knowledge management to enable the creation of platforms, processes and standards for collaboration and knowledge sharing across geographical and organisational boundaries.

6.1.8. Time and cost savings

Time and selection is a driver for knowledge management. People find it difficult to know what knowledge is available and which sources are the best to use. This means they waste time in finding the right sources (Abramson, 1999; Hargaddon & Sutton, 2000; Martiny, 1998; Zack, 1999). Time saving, and therefore also a cost saving, is achieved in terms of prevention of duplication of work due to the knowledge of what knowledge already exists, or what work has been done before (Greco, 1999; Reiss, 1999; Yu, 2000).

Reusing knowledge in different contexts creates new insights in the organisation. The reuse of the knowledge increases the scope and value of the knowledge (Martiny, 1998; O'Dell & Grayson, 1999).

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6.1.9. Internal inefficiencies

Organisations are concerned with how experience can be transferred more effectively and quickly and how to capture and document valuable insight so that it can be reused. Missed opportunities, wasted time and operational inefficiencies represent competitive disadvantage and contribute to excessive cost, reduced revenue and poor bottom line. This is why organisations implement knowledge management (Parlby & Taylor, 2000).

6.1.10. Knowledge hoarding

According to the researcher, knowledge hoarding takes place due to the "knowledge is power" syndrome in most organisations. Hoarding often also takes place within functional silos in the organisation or where competition exists between various business units (Hargaddon & Sutton, 2000).

Knowledge management can assist in overcoming this barrier through rewarding people for sharing their knowledge (Darling, 2000; Hargaddon & Sutton, 2000). According to the researcher people also often hoard knowledge because no proper platforms exist to enable them to share their knowledge effectively. Knowledge management can provide these knowledge-sharing platforms.

6.2. eBusiness drivers

6.2.1. Alternative channel

The Internet is an alternative channel of offering products and services. Customers may prefer this channel, which means that if the organisation has competitors offering similar products or services online when the organisation doesn't, customers may defect (Chu et al, 1999; PricewaterhouseCoopers, 1999a).

The Internet can also be used as an alternative way of communicating with customers or suppliers, reducing the time spent on routine tasks such as applications processing, updating customer account information and reporting on e.g. status of insurance claims or bank transactions in a specific account (Stewart, 2000). Once again, if the organisation does not provide this channel, customers and / or suppliers may defect.

6.2.2. New products and services

Organisations can create products or services unique to the eBusiness environment. This can change these organisations' competitive strategy (PricewaterhouseCoopers, 1999b).

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Organisations are therefore driven to implement eBusiness in terms of expanding their products and services to a brand new channel.

6.2.3. Global reach

The Internet's global reach means companies can capitalise more efficiently on business opportunities anywhere in the world. The ideal eBusiness can consolidate global operations on a single data centre, establishing new best practices under a shared service centre model of business operations. Companies will eliminate barriers that previously existed. These organisations will have an expanding customer and supplier base, and can operate in markets that have been out of bounds before (Berryman, 2000; E-business transformation, 1999; Nevens, 1999; PricewaterhouseCoopers, 1999a; PricewaterhouseCoopers, 1999b).

6.2.4. Competitive threat

Operating in the eBusiness world is seen as a strategic advantage today (Friedman & Langlinias, 1999). "It may not always be profitable at first to be on the Net, but certainly it is going to be unprofitable if you're not to be on it. Your competition will be there even if you are not. The Net can be a threat to established companies if they don't learn how to work in this new medium" (Andersen Consulting, 1997). According to the researcher, it can therefore be a competitive threat not to enter the eBusiness arena.

According to PricewaterhouseCoopers (1999c), eBusiness changes the dynamics of industries, therefore organisations participate in it or face the option of being left behind (PricewaterhouseCoopers, 1999c). "There are so few options left for those who ignore the growing impact of eBusiness on their industry, their markets and their customers" (Berryman, 2000).

Consumer demands also change due to the availability of new products and services provided through the Internet, so that organisations that are not web enabled will be left behind, as they cannot fulfil the needs of the customer (Friedman & Langlinias, 1999).

All of the above scenarios pose a significant competitive threat to businesses, therefore driving them to enter the eBusiness world.

6.2.5. Cost

Organisations can save cost by transacting through the Internet (PricewaterhouseCoopers, 1999b; Stewart, 2000). According to Stewart (2000), it cost banks 1 cent to process an

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Internet transaction, compared to 27 cents for ATM transactions and more than a dollar for branch transactions.

Cost savings, combined with convenient and customised service, will encourage customers to buy products and services online. Companies that offer online products or services will be able to undercut traditional products and services (Stewart, 2000). This acts as driver for organisations to gain a virtual presence.

6.2.6. Knowledge harvesting abilities

eBusiness allows organisations to accumulate more knowledge on their customers, suppliers and markets than in the traditional business environment (Friedman & Langlinias, 1999; PricewaterhouseCoopers, 1999b). This provides them with a competitive advantage, as they can deliver a more targeted service as a result of the knowledge gained on customers, suppliers and markets.

6.3. Customer relationship management drivers

6.3.1. Changing environment and business rules

"In today's fast paced, technology-driven marketplace, companies are struggling to maintain customer loyalty, generate new revenue and control costs while at the same time racing to beat their competitors to market. Customers are more knowledgeable about what they buy. Better educated, they are willing to pay for perceived value but no longer base allegiance to a single company solely on past results. The old loyalties are gone. Long-standing relationships are no longer relevant if customers do not feel that they are getting the highest quality product or service for their money. Companies are looking for ways to leverage their existing customer relationships to increase revenue. At the same time, mergers and acquisitions, consolidation and deregulation have increased competition to unprecedented levels and have accelerated efforts to increase efficiency and reduce costs" (Takis, Cote & Stanmeyer, 2000, p.133).

6.3.2. More options available to customers

Technology and competitive pressure, as well as global reach, have created more options for customers that were not available before. Customers are now only a mouse click away from competitors and will more easily defect due to a lack of face-to-face contact with sales staff (AT Kearney, 2000a; Poll reveals lack of e-relationships, 1999). It therefore becomes more and more crucial to build customer relationships, instilling loyalty and therefore repeat business.

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6.3.3. One view of the customer

As the market becomes increasingly fragmented and commoditised, organisations are finding it difficult to use traditional mass marketing techniques to capture market share. Broad marketing campaigns simply aren't effective anymore. One message does not fit all. Because of the proliferation of customer services and customer needs, organisations need to market to many kinds of users. Customers' use of different media has also fragmented and the media proliferated. To succeed in future, organisations need to better understand what customers want. Marketing must to be more finely tuned, which makes customer relationship management a necessity (Abrams, 2001; Handen, 2000a, p.7).

Customer relationship management can provide one view of the customer through the gathering of customer knowledge and intelligence and sharing this in one central repository available to all staff in the organisation, which can be used to provide a holistic view of the customer.

6.3.4. Cross-selling and up-selling

Customer relationship management provides the organisation with one view of the customer, i.e. it provides a better picture of the totality of his or her needs. This means that the organisation is in a position to do cross selling or up selling of products or services according to the knowledge it has of the customer (Handen, 2000a, p.7; Rigby et al).

6.3.5. Repeat business

In the eBusiness environment repeat business becomes crucial due to cost factors. To recoup cost, organisations have to convince customers to return to their websites again and again. To ensure repeat business, relationships with customers have to be built. Repeat customers spend more and generate larger transactions. Repeat customers also refer more people (AT Kearney, 2000a; AT Kearney, 2000c; Rigby et al, 2000).

"These relationships are key to moving beyond the cost cutting and streamlining of the past to an era of growth" (Patmore & Renner, 1997).

Organisations are thus driven to implement customer relationship management by the potential of ensuring repeat business.

6.3.6. Improved customer service

Customer relationship management provides one view of the customer, i.e. fragmented

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knowledge of the customer is centralised, providing the organisation with the capability to deliver a better service (Ernst & Young, 2000b; Patmore & Renner, 1997; Poll reveals lack of e-relationships, 1999). Improved customer service leads to increased customer loyalty, thus ensuring repeat business (Rigby et al, 2000).

6.4. Conclusion

(Refer Figure 21 for summary)

6.4.1. Drivers of knowledge management in the eBusiness environment

6.4.1.1. Sharing of knowledge across organisational and/or geographical boundaries

Knowledge management ensures that knowledge flow can take place across organisational boundaries or across geographical boundaries. This is extremely important in the eBusiness environment where organisations collaborate with one another or internally across various locations and functional units. Knowledge management will ensure that staff knows what knowledge is available to them and it will provide them with processes and platforms to share it. It will also provide one point of access, with useful navigation tools. Knowledge management will thus make it easier and quicker to access and leverage knowledge, leading to efficiency and productivity improvements. It also increases the organisation's agility, which is critical for any eBusiness, enabling the organisation to act quickly to any changes in the marketplace.

6.4.1.2. Competitive advantage

Knowledge management ensures the availability of and access to relevant, up-to-date strategic knowledge on markets, products and services, competitors, processes and procedures, employee skills, and the regulatory environment, for decision-making and daily work activities. This ensures that the organisation can act quickly to changes in the marketplace and can act ahead of its competitors, i.e. it provides the organisation with a competitive advantage in terms of agility. Efficiency is also increased due to time saving and prevention of duplication of work due to the availability of knowledge. The availability of knowledge through knowledge management also creates a learning environment for staff, thus raising the skills level of the organisation's staff members. All of the above raises the organisation's competitiveness.

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6.4.1.3. Efficiency and cost saving

Efficiency is also increased due to time saving and prevention of duplication of work because of the availability of knowledge. The organisation can therefore be quicker to market and its level of agility increases. This can lead to substantial cost savings.

6.4.1.4. More knowledge available

In the eBusiness environment, due to the expansion of reach, organisations' customer and supplier bases expand. Organisations also share certain knowledge with one another to benefit them in the marketplace. This means that eBusinesses have more knowledge to manage and leverage off than traditional businesses. This is a driver for implementing knowledge management.

In the eBusiness environment, technology can also generate a lot of information that can be turned into knowledge, e.g. customers' search behaviour and information is captured through the use of cookies generated by Internet browsers. This also necessitates knowledge management to ensure value is extracted from this available information and knowledge.

6.4.1.5. Collaboration

In the eBusiness environment collaboration is essential. eBusinesses collaboratively design products across geographical boundaries and sometimes across organisational boundaries. There is also collaboration in the form of virtual communities internal and external to the organisation, e.g. through intranets and extranets. These communities share knowledge on a wide variety of issues.

The technology, processes and platforms to enable the said collaboration can be provided by knowledge management and acts as a catalyst for implementing knowledge management. Knowledge management also ensures the retention and structuring of the knowledge shared in these collaborative forums that can be used as input to further knowledge creation within these and other forums. The organisation's time to market decreases and agility increases due to the leveraging of this knowledge.

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6.4.2. Drivers of knowledge management in the customer relationship management environment

6.4.2.1. Expanded customer base

When implementing customer relationship management, the knowledge management program can assist in managing the increased amount and flow of knowledge related to an expanding customer base, which is caused by the explosion of richness and reach in the virtual world.

Implementation of knowledge management is necessitated due to the structure knowledge management processes and systems can provide to the knowledge base to ensure that all relevant knowledge is retained and made accessible, to add value to the organisation as well as the customer.

6.4.2.2. Sharing of knowledge across organisational and/or geographical boundaries

Due to the explosion of reach in the virtual environment, companies find that their customer base is expanding. With that comes an expanded customer knowledge base that needs to be managed. Organisations often operate in a geographically distributed environment, or large organisations often function in a hierarchical fashion, stemming the flow of knowledge.

Implementation of knowledge management is driven by the need to create one view of the customer across organisational and/or geographical boundaries. This consolidated profile of customers will enable targeted marketing and more efficient service delivery.

6.4.2.3. Consolidated view of the customer

Knowledge management provides the technology, processes and platforms to create, share, harvest and leverage knowledge on customers in one central location, thus providing one view of the custumer, irrespective of geographic location or functional area in the business. The knowledge management system can provide real time knowledge and information on the customer spanning the customer relationship lifecycle. This ensures that staff have one updated set of knowledge on the customer irrespective of where they work. This allows a better understanding of customers and their needs, and therefore enables more effective and efficient customer service.

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6.4.2.4. Satisfaction of customer and supplier demand for more knowledge

In the eBusiness era, customers and suppliers demand more information and knowledge at their fingertips about organisations that they buy products or services from. Customers and suppliers will easily defect to another competitor if an organisation does not provide adequate information and knowledge on products and services. Knowledge management is thus necessitated to ensure that this need can be fulfilled. Examples are providing adequate knowledge and information on websites, through call centres, etc.

6.4.2.5. Collaboration

In the customer relationship management environment collaboration is becoming increasingly prevalent due to organisations expanding their reach and working across geographical boundaries, and due to the drive of creating one view of the customer. These organisations use collaboration in the form of virtual customer teams to ensure the harvesting, sharing and leveraging of customer knowledge. Knowledge management provides the technology, processes and platforms to enable the said collaboration. Knowledge management also ensures the retention of the knowledge shared in these collaborative forums. The knowledge harvested and shared in these collaborative forums are used to build customer profiles. These profiles enable staff to deliver more efficient customer service.

6.4.2.6. Targeted marketing

Knowledge management can provide the organisation with one view of the customer. This allows the organisation to do more effective and efficient marketing to customers, due to product and channel segmentation that can be done. This means that products and services are not marketed in general to all clients. Specific products and services relevant to the needs of customers are marketed specifically, cutting cost and increasing staff productivity.

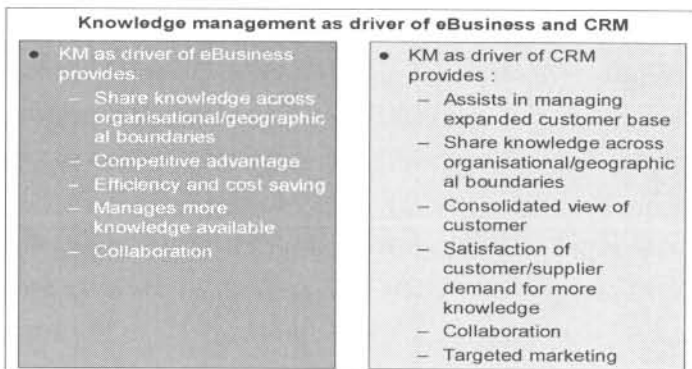| Knowledge management as driver of eBusiness and CRM	

• KM as driver of eBusiness provides:
    − Share knowledge across organisational/geographical boundaries
    − Competitive advantage
    − Efficiency and cost saving
    − Manages more knowledge available
    − Collaboration
	• KM as driver of CRM provides :
	    − Assists in managing expanded customer base
	    − Share knowledge across organisational/geographical boundaries
	    − Consolidated view of customer
	    − Satisfaction of customer/supplier demand for more knowledge
	    − Collaboration
	    − Targeted marketing

Figure 21. Knowledge management as driver of eBusiness and customer relationship management

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management

Reasons for knowledge management being a driver
of eBusiness and CRM:

–Share knowledge across organisational/geographical
boundaries
–Competitive advantage
–Efficiency and cost saving
–Manages more knowledge available
–Collaboration
–Assists in managing expanded customer base
–Consolidated view of customer
–Satisfaction of customer/supplier demand for more
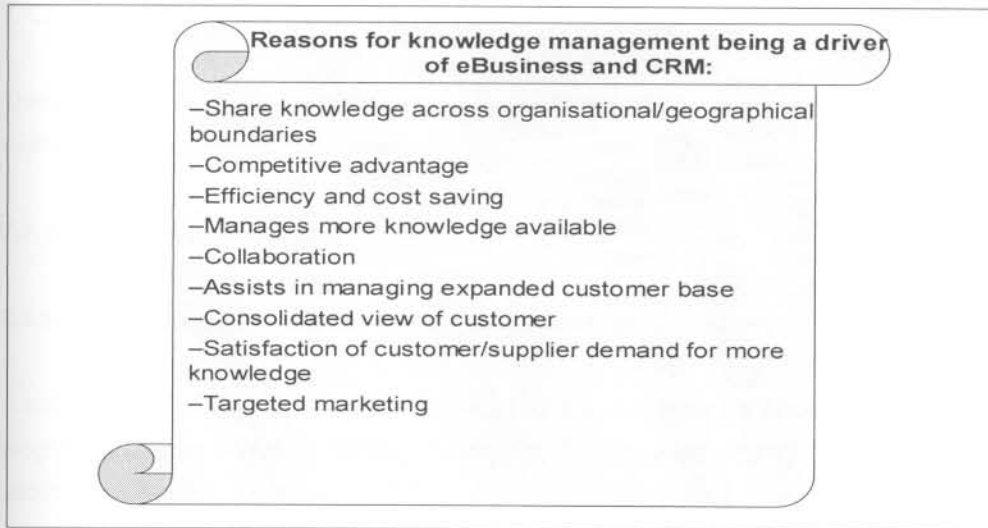knowledge
–Targeted marketing

Figure 22. Reasons for knowledge management being a driver of eBusiness and CRM