

Shareholder Value through Knowledge Management – How IT-based knowledge management generates the conditions for creating and retaining value

Dr. Martin Stadelmann
Senior Manager, Head of Management Consulting
Mummert + Partner Unternehmensberatung AG (Switzerland)
World Trade Center
Leutschenbachstrasse 95
CH-8050 Zürich
Martin.Stadelmann@mummert.ch

Abstract

Recent literature on the subject contains numerous definitions of the term knowledge management (KM). The justifications which are adduced to legitimise KM business solutions on offer are equally numerous. Central to the argument in favour of the implementation and use of solutions involving KM for the majority of writers are the expected improvements in operational processes, and the optimisation of organisational circumstances. The emphasis is on aspects of cost and the potential for saving money, and on the opportunities for improving efficiency and rationalisation. By way of contrast, the article presented here describes an integrated approach to knowledge management which expands on this reductionist way of looking at things, and includes a strategic perspective of value creation and retention into its considerations. Taking as a starting point the main direction of thrust of the value-creation strategy – its emphasis on products and innovation, customers and their loyalty towards the company or cost and operational efficiency - those areas of internal business activities are identified, that hold out the prospect of considerable potential for the creation of value if accompanied by coherent management systems, processes and structures, as well as supported properly by IT-based systems for knowledge management. At the same time, a sample of measurable variables will be presented from which it is possible to gauge

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the impact of the action taken, and which can also be used as a standard of comparison in the context of benchmarking for a certain number of companies.

1 KM: Creating value instead of reducing costs

Based on the concept of shareholder value, the ability of a company to generate financial profit in the long-term (thereby *creating value* for its owners), is regarded as a precondition for the success of any entrepreneurial activity. The attainment of a level of value-creation which can be compared with that of competitors is dependent on the financial deployment of the available material assets, i.e. the means of production of fixed assets and assets in circulation which can be assessed in monetary terms. However, only the logical, targeted and innovative deployment of the intangible business asset "knowledge" (referring to tried and tested procedures, customers, products and their qualities, information flow, values, behaviour, co-operation with internal and external agencies etc.) can enable a company to surpass its competitors, and by means of a permanent increase in its stock market capitalisation – and thereby its *market* value - to create shareholder value and secure it in the long term. From this point of view the following definition is offered:

Knowledge

is the basis which a company needs to establish specific capabilities which will enable it to compete successfully in the long term and thereby create, retain, and secure value for its owners.

For companies which are resolutely orientated towards value-creation, it will therefore no longer be possible to gear the design and introduction of solutions involving

KM towards criteria of efficiency and rationalisation in. Rather will they have to take continuous account – i.e. in parallel with the working, problem-solving and decision-making processes in which employees are involved - of the necessity to identify their employees' need for knowledge. It is important that this should be satisfied at the earliest opportunity, to enable companies to develop and establish the core competences which are essential to successful action and thus to the active creation of entrepreneurial value.

Additionally, it is vital for any knowledge management program, to create the conditions for establishing a company culture in which knowledge is communicated, circulated and published. This may involve symbolic acts such as the periodic award of "Knowledge Share Awards", though it can also be directly incorporated into the material incentive system (e.g. as an integral part of personal or even team MBOs). It is a central objective to create a working atmosphere in which isolationism and "hoarding" knowledge do not constitute a source of power, influence or indispensability for specific individuals or groups within a company. Contrary to this, it should be the objective to attain a situation in which the circulation of useful knowledge is rewarded, and employees can distinguish themselves by making their knowledge, expertise and experience widely available on a broad front to be used and re-used in connection with entrepreneurial value-creation processes. In this context, emphasising the fact that "knowledge is the only company asset which is not exhausted with use, but actually increases both quantitatively and qualitatively" will support arguments in favour of knowledge access, sharing and distribution.

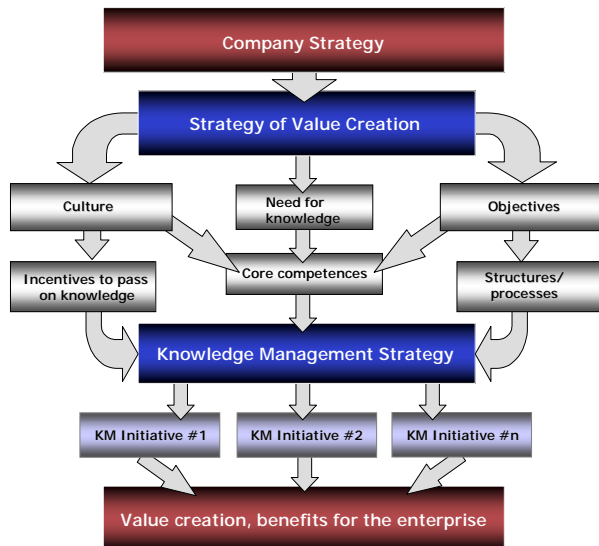


Figure 1: Determinants and process of deriving a strategy for Knowledge Management (KM)

2 Focus: Emphasis on product, customer and cost

The establishment of a KM initiative which is specifically geared to a certain company as a tool for creating and maintaining shareholder value requires the involvement of all of the agencies (board, top management, department heads, etc.) which are responsible for the company's strategic orientation, and the consistent support of management. These must define the dominant value-creation strategy for their company – emphasis on product, customer or cost - and communicate this unambiguously within the company. The three generic value-creation strategies below are central to this:

- product-orientation – the continuous development of innovative products and services, which can satisfy the very latest demands of the market and customers,
- cost-orientation – the logical rationalisation and financial optimisation of existing production and logistics procedures to secure leadership on cost, and
- customer-orientation – the creation of long-term and intensive relationships with customers to secure and build on the existing potential for a return (i. e. additional business, more intimate business relation, reap the benefits of cross- and up-selling).

Within these three generic strategic orientations, it will be possible for most companies to adopt an *unambiguous* position on the basis of the overarching company policy.

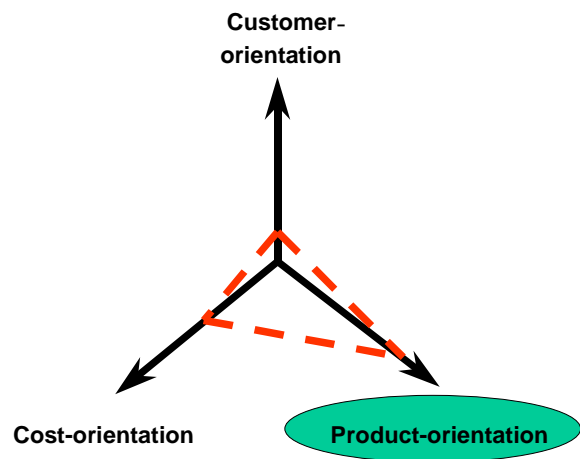


Figure 2: Positioning a company's specific value-creation strategy which is specific to a company (e.g. "Product-orientation")

Taking that position as a starting point, KM initiatives must be directed at providing specific support activities for the establishment of the required core competences in the area of the strategic focus which has been specifically selected by a certain company or division within a company (see table, Appendix page 20-5). Different studies

have in fact demonstrated that scarcely a single company has succeeded in reaching the top in more than one of these three areas, in comparison with its competitors, and that it is essential to strategic consistency to identify one's own strengths and exploit them in a competitive environment. Even so, it may be quite opportune, wherever KM initiatives which are specific to an area or division are launched, either to adopt various of these directions of main thrust in parallel KM initiatives, or to pursue a combination of various of these value-creation strategies as part of a single initiative. In this case, all the activities and initiatives must be closely monitored and coordinated, so that it is ensured, that the selected measures will not be contradictory with each other.

3 Approach: Example "Product orientation"

For the purposes of a "knowledge value assessment", those areas of knowledge will be identified in the initialisation phase of a company-wide KM program (consisting of different KM initiatives) which are essential to the establishment and exercise of the core competences which enable the company to perform specific activities in respect of the selected strategy for value-creation (see table, Appendix page 20-5). In the context of this example - the case of companies where strategy is focused on product-orientation (which is typical for pharmaceutical or hi-tech companies) - the particular competences are:

- the use of interdisciplinary working practices and methods of problem-solving,
- the promotion of creative work styles and conceptual thinking,
- the rapid development and commercial exploitation of new products and generations of products in swift succession,
- the development of solutions which are based on the transfer of knowledge between different functional areas and divisions,
- the circulation and exploitation of technical knowledge, functional expertise, and experience inside and outside an individual team,
- the identification of new areas of application for existing technologies and solutions, and
- the early recognition of promising technological developments and market trends.

As a consequence, one of the main demands on an IT-based KM system consists in the provision of infrastructure mechanisms (whether in the form of functionalities or autonomous tools) which support the establishment and exploitation of these competences from the point of view of collaborative processes within and between teams or groups of people. The following are particularly suited to this : e-mail, groupware, workflow,

conferencing and decision support systems, distance learning tools and discussion forums.

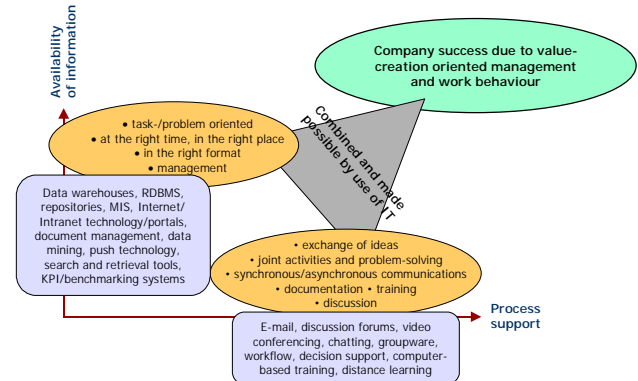


Figure 3: Combination of process support and the availability of information

The fields of knowledge which are specific to a company or situation, and which are essential to the establishment and exercise of the core competences which are relevant in the case of product-orientation, and thus require intensive management (i.e. acquisition/collection, storage, maintenance, circulation/provision) come under the following areas:

- fundamentals and related research,
- design, development, and construction,
- project management,
- familiarity with the customer's requirements,
- information about patents
- competitors' development projects and the results
- market intelligence

Obviously, management of these areas of knowledge is conditional upon access to data and information from a variety of sources – both in-house and external. Access to external sources may involve the use of search and retrieval tools which are based on internet technology and access mechanisms. Data bases, data warehouses and intranet portals will be used to establish in-house information and knowledge stores – known as "content repositories" - , while tools for the provision of access rights, document and content management and data mining as well as analytical tools are available to complement internet technology for the purposes of retrieval and searching.

It is only this combination of tools and functionalities, which support processes with sophisticated information stores and access mechanisms, which permits a "leverage effect" that allows employees to re-orientate and restructure their management and work behaviour with a view to the creation focussed on value.

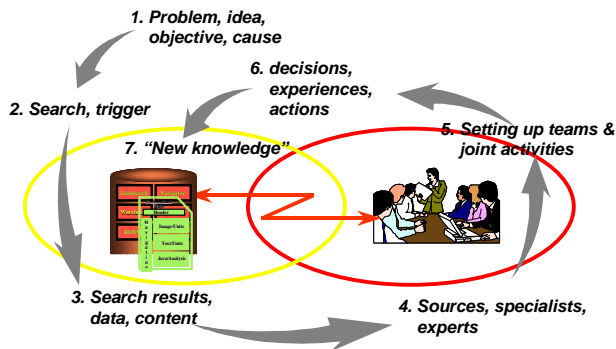


Figure 4: The Knowledge Management cycle

A system which is designed in this way will thus support employees in their customary problem-solving and decision-making processes, while at the same time ensuring that the results of these co-operative processes do not go astray, but continually flow back into the knowledge stores provided as "new knowledge". There they will broaden the knowledge base which is available for the next cycle of activities to include the latest experience and results. At present this still largely happens either in a structured or an unstructured form. However, future KM solutions and KM products will contain a methodical fusion of the two forms.

4 Conclusion

The overarching objective behind the conception and design of knowledge management solutions must therefore be to provide their users with the information they require to fulfil their tasks successfully from those areas of knowledge which are relevant in the context of those tasks – at the right time, in the right place and in the right format. Regarding the collaborative processes involved in task fulfilment and problem solving, they must contain infrastructure mechanisms which can support cooperative work structures and procedures.

In this combination, a KM solution will be able to improve considerably the competences which a product-orientated company needs to consequently pursue its emphasis on the value-creation, and to ensure both the creation of value (turnover, yield etc.) and its retention (which can be seen from stock market capitalisation) in the long run.

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Appendix (Table)

	Establishment and maintenance of areas of knowledge	⇒ Essential core competences	⇒ Potential for the creation of value/measurable variables
Product-orientation	<ul style="list-style-type: none"> • fundamentals and related research • design and development • project work and project management • lessons learned • market trends and customer requirements • information about patents • competitors' development projects and the results • market intelligence 	<ul style="list-style-type: none"> • rapid development and commercial exploitation of new products and generations of products • the early identification of new areas of application for existing technologies and promising technological developments and market trends • interdisciplinary activity and problem-solving • creativity • conceptual thinking • transfer of knowledge between Divisions • transfer of knowledge within and between teams 	<ul style="list-style-type: none"> • quality of selection and prioritisation of R&D projects ↗ • time-to-market ↘ • life cycle of company's own products ↗ • number of company's own patents and copyrights ↗ • re-use of results of development ↗ • yield/new development ↗ • acquisition of new customers/proportion of return on new customers ↗
Customer-orientation	<ul style="list-style-type: none"> • customers' habits, needs, preferences • customer data (historical data and personal details) • rival suppliers, market knowledge and experience • good knowledge of own products and services • tendering procedures • best practices for consultations and customer-support meetings 	<ul style="list-style-type: none"> • relationship management • creation of references, generation of recommendations • identify and exhaust opportunities for cross-selling • create exchange barriers • database/system-based marketing, e-commerce • retention marketing • establishment and maintenance of a positive brand image • reliability of products and services • transfer of experience 	<ul style="list-style-type: none"> • customer loyalty ↗ • length of relationship with customer ↗ • fluctuation in customers ↘ • turnover, return per customer ↗ • share of wallet ↗ • number of customers/employees ↗ • new-customer business/total business ↗ • image ↗
Cost-orientation	<ul style="list-style-type: none"> • production schedules • production processes, processing orders • procurement/ sales processes and channels • materials management and logistics • best practices for operational processes 	<ul style="list-style-type: none"> • efficient output of goods/services and processing of orders • competence in procedures and methods • analysis and problem-solving • definition and maintenance of standard processes • internal and external benchmarking 	<ul style="list-style-type: none"> • turnover of stock ↗ • utilisation of means of production at capacity ↗ • productivity of factors of production ↗ • scrap, rate of defects ↘ • delays in delivery ↘ • capital tie-up ↘
	Knowledge	⇒ Capability	⇒ Benefit

Table: Selected aspects of KM support for value-creation strategies