

Creating Competitive Advantage through Knowledge Management

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Abstract:

Creating competitive advantage through knowledge management involves understanding and properly managing the organization's intellectual property. Working in a global environment across a total engineering organization poses challenges to a knowledge management system.

Value can be created by standardizing processes across geographies and creating Operating Disciplines applied systematically by all. In addition, a robust system for capturing knowledge can create value by enabling information sharing that likely will save time and money by avoiding potential duplication of effort.

Introduction

Companies have gained an understanding of how to capture knowledge and store it. There are many content management companies out there ready to show us how to create and store our information. And most companies have strong I/T groups who know how to manage the storage of information. But that is only half of the battle we face when discussing how to use information.

What companies don't know how to do very well is analyze and integrate knowledge into the way we do our work. It is a good thing to capture learnings, interview experts, and document procedures. But if that information is just captured and stored, we are missing a great opportunity. Thus the question, how do we create sustainable competitive advantage through excellent knowledge management processes?

In Figure 1 you see a Model called the "Data to Wisdom Model". It shows the progression from Data to Information to Knowledge to Wisdom. Using this model as a reference point in general, companies are pretty good at the processes under the dotted line - or the information management piece of the puzzle. Where we fall short on processes is above the line. And these are the areas that are critical to achieving competitive advantage. We could think of this Data to Wisdom model as the "supply chain" of knowledge management.

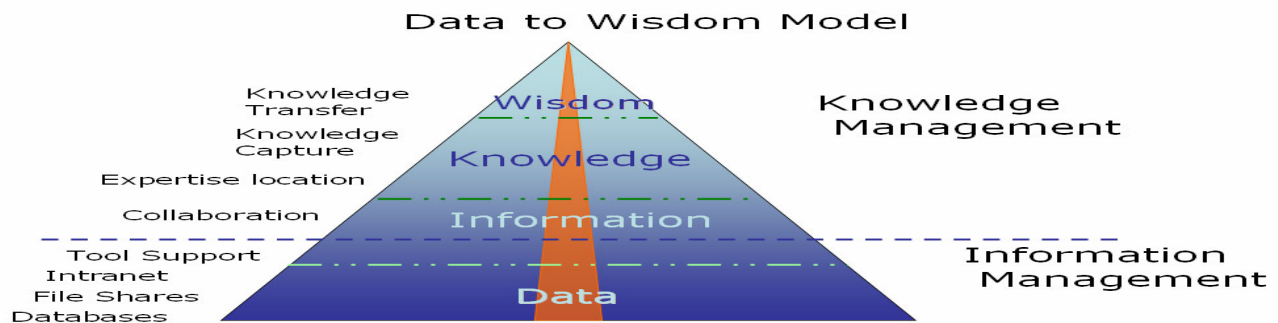


Figure 1.

Sustainable Competitive Advantage

But what is competitive advantage and how can we sustain it? Competitive advantage is the strategies, skills, knowledge, resources or competencies that differentiate a business from its competitors. Michael Porter, author of the classic text on the topic titled "Competitive Advantage: Creating and Sustaining Superior Performance" says that all advantage can be connected to specific activities and the way that activities relate to each other, to supplier activities and to customer activities. Further he says that all employees, regardless of their distance from the strategy formulation process must recognize their role in helping a firm achieve and sustain competitive advantage.¹ This is a challenge to leadership to empower their organization to become leaders at all levels. It is imperative that everyone in the organization knows and understands, or has the "wisdom" of the corporate strategy. Without that understanding a company runs the risk of silos being created and work being done that won't enable the company to achieve its strategy.

Successful identification and management of a company's intellectual property is extremely important to creating sustainable competitive advantage. Most obvious intellectual property is technologies, inventions, data, publications and processes. These can all be patented and protected. But not often thought of as intellectual property is the "best" way to do something or perhaps even the "worst" way to do something. Or what about knowing who the expert is in a particular area. This is also included in a company's intellectual capital.

Superior Knowledge Management

Often heard as the definition of Knowledge Management is "getting the right information to the right people at the right time"...nicely put. However, how often is a company really able to be successful at delivering this? There are four key characteristics of a superior knowledge management system.

¹ Porter, Michael, Competitive Advantage: Creating and Sustaining Superior Performance, The Free Press, New York, 1985.

Globalized: This means it must be all inclusive of the universe the organization works within. In Dow's case we are very much a truly global corporation. In today's global environment one is often more likely to be working with people in other parts of the world on a daily basis than with the people right across the hall. We have the benefit of having consistent information technology across the company which furthers our capability to share information quickly and consistently. However, an added burden to this sharing is the necessary compliance with country import/export regulations.

Continuous: There must be a sustainability factor to a knowledge management system. This is one of the key reasons systems break down. Part of the Knowledge Management Leader role is to keep track of all of the knowledge systems in our organization making sure that we are not duplicating efforts.

Recognizable: It has to be evident to the correct audience that the "system" exists. Further it must be recognizable that participation is key to keeping a "system" alive. Definition of what is meant by a "system" is not defined here as that is not necessarily the relevant point. If the contributors and users to the knowledge system either don't know about it or don't acknowledge it then the system is dead in the water. It is critical to 1) understand the needs for a system 2) engage the potential contributors and users of the system in its development and 3) then properly market the system once it is developed.

Consistent: Too often in organizations there are many, many repositories of information that are organized and managed in various ways. When a potential user or contributor goes to the repository it is not always evident how to access the repository. Dow has excelled in this aspect of superior knowledge management. We have a consistent format, look and feel to all web sites within the company. Creative, colorful, glitzy web sites are a thing of the past. We have recognized the importance of concentrating on the development of superior content rather than the look.

Barriers to Superior Knowledge Management

There are some barriers to creating and sustaining competitive advantage that are worth discussing. Dow's model for alleviating some of these barriers will be addressed later.

The primary barriers to achieving superior knowledge management, which in turn should lead to competitive advantage, are lack of time, change, lack of mentoring and ineffective communication.

Time: There are few people in this room who could say they have free time available while they are at work. The demands of a global economy coupled with fewer resources, has put a strain on the workforce. Meeting the challenge of tight time demands does not usually allow for proper follow through on knowledge capture let alone having the time to pursue previous learnings. Particularly if the previous learnings are hard to find, workers often find it is less time consuming to recreate, rather than reuse.

Change: In addition to the challenges mentioned above we all find ourselves in changing situations. Whether it is from involvement with joint ventures, work with a new vendor, an influx of contract staff, new business directions...these all cause changes to the way we work. Just when we think we are settled in and know the best way to do something a curve is thrown at us and the way we used to do it no longer works. There is training to do, processes to change, and most importantly - quick integration of these changes.

Lack of mentoring: this is largely a result of lack of time and quick change. In many cases mentoring opportunities are left up to the new employee to pursue, which because of their insecurity or not knowing who to go to, results in little or no mentoring. Consequently the vast knowledge that senior engineers may have often goes unshared with the younger engineers. This is a huge opportunity to improve upon which many companies miss.

Ineffective communication: Without an effective communication process the likelihood that knowledge is being created in parallel is highly likely. Networking within companies and with external partners is key to staying competitive. Tools such as Communities of Practice are excellent ways to bring like minds together to share best practices. Similarly, getting the key practitioners together to regularly meet and establish lines of communication will go far towards creating superior knowledge management practices.

Dow's model

Leadership of the Engineering function at Dow has shown a vision for how Knowledge Management can lead to success in the market. Rather than wholly relying on engineers to have the time to capture and integrate knowledge they have created a role that is charged with doing just this. Currently all of the Engineering functions in the company come together in one group. This enables us to deliver a single source of engineering service to the company - rather than a more fractured approach as in the past.

The Knowledge Management Leader for that organization transcends all of Engineering. Further foresight on management's part was to incorporate the responsibility for our Intellectual Property Process into the role. This affords the opportunity to make decisions not just on the information we store, but on the entire process as presented in the Data to Wisdom Model. The work done by the KM Leader alleviates much of what formerly was left on the plates of the engineers to figure out in their "spare time".

The Engineering KM Organization is responsible for all of the engineering web sites, file shares, Communities of Practice and all knowledge work processes globally. This has enabled consistency across the global engineering functions. It also perpetuates best practices for protecting our information through proper labeling of documents, proper records management and storage. Functionally we align to the Corporate Information Management and Knowledge Management global organizations which afford our Engineering organization the

ability to share and leverage the best practices established corporately.

Also within the scope of this role is a newly created Competitive Intelligence process which will enable us to continually keep an eye on the competition and the developing engineering industry. This is a key part of gaining and sustaining competitive advantage. Having an open eye to the outside world is a primary way to understand how to keep ahead of your competition. As discussed earlier, it is important to not only gather the competitive intelligence, but also understand how to integrate what we learn into the way we do our work.

By incorporating leadership responsible for the Engineering knowledge management, information management, intellectual property process and competitive intelligence into one role there is a much better chance for increased competitive advantage brought about by superior Engineering capabilities. Being the best at getting the right information to the right people at the right time is key to increasing the chances of gaining competitive advantage for the corporation.