



## Harvesting knowledge crops

Read the description of competency mapping below.

Choose an organization and try to develop a competency map which highlights their core strengths in their knowledge base and where and how they have used – and might use in the future - these competencies to create value through innovation.

### Competency mapping

Think of a company like Sony - and what comes to mind is not just that they are good at electronics, but also that they have a design flair (from the earliest Walkman designs through to today's wide range of devices), that they are very good at miniaturisation (they built the first transistor radios and have maintained this miniaturising approach right through to today's DVD players and mini-discs), and that they are not afraid to lead the market rather than wait for consumer panels to tell them what to do (think of the Walkman - a product that marketing didn't think would sell!).

These are examples of what is distinctive about Sony – they also represent things that are not easy to copy or reproduce without a long learning process. They constitute what is almost an aspect of the 'personality' of the firm and that is called its distinctive technological **competency**

### Creating a competency map

Competency mapping is about mapping the knowledge base of the firms. To this end it can perform a number of useful functions:

- it can be used to identify the key areas of knowledge that contribute to the firm's competitive success, and to help the firm understand how it might develop or combine these in the future to maintain strategic advantage;
- it can be used to identify additional competencies that would be necessary in order for the firm to move in a new strategic direction;
- it is a useful tool in identifying gaps between what the firm needs in terms of competencies to achieve its goals, and the current skills and knowledge set within the firm.

There are several methods for developing a competency map. In general, creating a competency map involves thinking about your firm, and drawing a 'family tree' of the key bits of knowledge that your company has used to build up its competitive position. How might you develop or combine these in the future to create or maintain strategic advantage?

**A more detailed model might go like this:**

**Step 1** - Look at what your firm has done in the past, as well as its current areas of operation, and identify the core competencies that have been critical to your success.

**Step 2** - Consider new strategic directions that the firm might pursue, both arising from existing competencies, and involving new competencies in related areas. In a document "Guidelines for Determining the Competence Gap", the author suggests the following questions as prompts for considering new strategic directions: What do our competitors do better than us? What are our customers' most important criteria for buying? What are typical trends in our business sector? What can we learn from neighbouring firms doing it well? Does there exist a result from research and development that is related to us? How do we keep our current customers and how do we get new ones?

**Step 3** - Create an overview of the necessary skills or knowledge sets (ie. competencies) for your strategic goals.

**Step 4** - Identify the firm's strengths and weaknesses, and how they impact on the strategic goals (past, current or future) identified in Step 1 and Step 2.

**Step 5** - Assess your performance in terms of these competencies - how well do you perform, and how important is the competency to your future strategic goals?

**Step 6** - Identify competencies that are important to future strategic goals, and analyse how these areas should be developed further.

**Step 7** - Create practical strategies for developing competencies further.

### **Strengths and weaknesses of competency mapping**

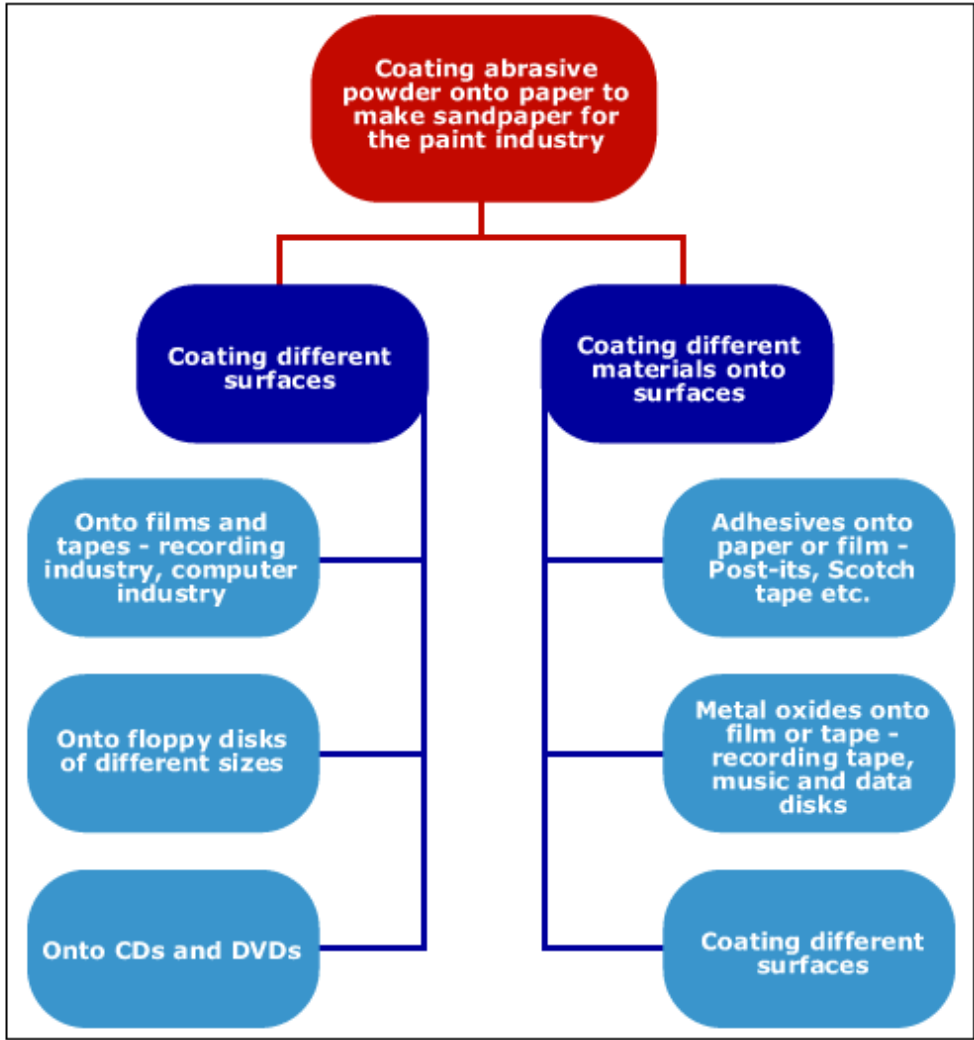
Competency mapping offers a framework for thinking about your core competencies, but does not provide answers per se. The quality of the output depends on who is involved, and how thoroughly the method is applied.

On a positive note, competency mapping can be applied to different areas of the firm's operation. It is particularly useful in assessing the human resource requirements of future strategic directions (ie. personal competencies), and focusing thinking on the gap between workers' current competencies and future demands.

### **The family tree of knowledge**

Graphically speaking, competency mapping can create a "family tree" of knowledge, so that it is clear how some competencies have developed from or are related to others.

For example in its 100 years of operation, 3M has produced more than 50,000 innovative products. Formed in 1902 as the Minnesota Mining and Manufacturing Company, 3M's first major innovation in 1904 was sandpaper. The company went on to use its core competency in coating surfaces with particles to develop such varied products as masking and cellophane tape, reflective sheeting for traffic signs, magnetic tape for audio recording, fabric and upholstery protector, cleaning pads, Post-its, Laser Imaging Systems and refastenable diaper tapes. The diagram below offers an example of what a competency map for 3M might look like. For more about 3M and its history of innovation, see their website <http://www.3m.com/>



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## **Hints for using competency mapping**

Ideally, representatives of all functions in the firm should be involved in the process of mapping the firm's competency, as a comprehensive overview of the firm's knowledge base needs to be created.

Competency mapping is not necessarily a one-day process: regular meetings over a process of time might be more useful.