

As we have seen, the knowledge account is the second main area being discussed. Knowledge in the form we are talking about

The knowledge account

here does not only exist in the form of training and experience among the employees; it also exists within the internal systems of the companies and their ability to cooperate with partners on markets for products, manpower, money and knowledge.

“The people” stands for both ordinary employees and managers and specialists in the organization. They make up “human capital”, not only because of what the individual people know, but also because of what they can do, individually and collectively. This is a capital that depends on factors like age distribution, experience and education, recruitment and replacement, in-job training and retraining.

“The systems” stands for all the knowledge that is independent of people. This includes patent rights, contracts, databases, organiza-

tional structures, information technology and production technology.

“The market” stands for the relationships between the organization and others. Suppliers and customers bring knowledge to the organization and may be partners, either formally or informally. Contacts with knowledge centres and external human resources (called “the knowledge market” in the figure) can bring the organization important knowledge. And the trust of the outside world is crucial to the organization’s ability to get new investments and new qualified employees.

These three categories of “knowledge” are closely intertwined. New technology is worth nothing without employees with updated competence, the confidence of investors and contacts with suppliers, dealers and customers. And the motivation of the staff as well as the confidence of the outside world are very closely related to the attitudes that the company professes and shows that it live up to.

Thus we can also see that the knowledge account and the social-ethical account are interrelated and cannot be dealt with independently of each other. The ethical-social behaviour of the companies helps to influence its relationships with both staff and markets; and the way the knowledge account is used requires the fulfilment not only of economic requirements but also of ethical ones.



Pressure for constant upgrading of qualifications - and an argument for firing those whose qualifications cannot be upgraded

“The background for the development of knowledge accounts has partly been calculations of personnel economy, partly various non-financial key figures. There has been dissatisfaction with the previous type of support, especially in the service sector and companies with well educated employees. With the knowledge account one helps to create a new contract between company and employee. The individual takes responsibility for his or her own training. We are trying to create key figures for the new contract. The employee undertakes to seek knowledge and education, while the company undertakes to make the employee suitable for employment. This puts pressure on middle management. The knowledge account is a management tool for initiating activities and ensuring constant enhancement of qualifications. But depending on how it is done, it can also become a good argument for firing those of the employees whose qualifications cannot be upgraded. This can lead to an “every man for himself” attitude.”

Jan Mouritsen,
Professor,
Department of Informatics and
Financial Management

Various initial approaches have been taken to a knowledge account. What is perceived as knowledge is not the same in a consultancy firm as in a metal goods factory, in a bank or in a public-sector agency. And what one understands as an account can be anything from a set of key ratios to an annual report. It depends who is to use the account.

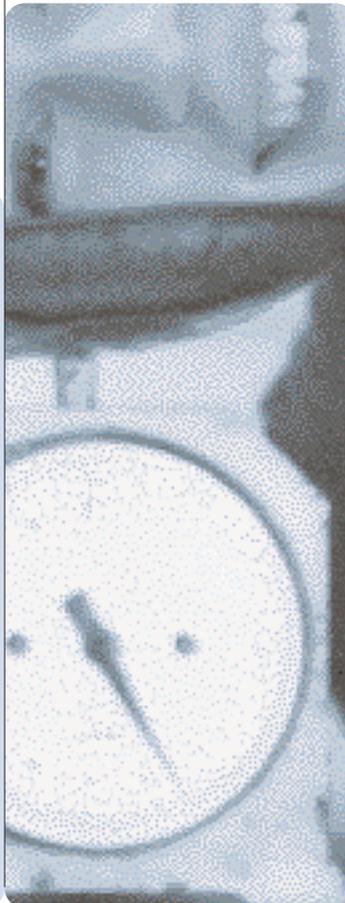
Some of the information is mainly for use in the everyday work of the company as a management tool. It shows whether the company or the division has the knowledge it needs for the tasks ahead. There may be a need for other information, if it is meant for the planning of training or the self-development of the employees. A third kind of information may be necessary if the account is to be used as documentation for a loan application.

The content can in other words differ a lot. But it can be divided up into three groups which describe status, actions and results. These can conveniently be called “what there is”, “what is being done” and “what is achieved”.

- **“What there is”** may be a description of the present situation in the company. It will typically be internal statistics - for example the composition of the staff, their age and education/training, and the equipment at their disposal; for example PCs or digitally controlled machinery.
- **“What is being done”** may describe how the firm acquires, develops and maintains knowledge; for example, internal key ratios for recruitment, development plans, training costs per employee, internal learning, personnel policy, job rotation and so on.
- **“What is achieved”** is the results obtained. You can measure or record these, for example, with questionnaires or interview surveys. How good is the wellbeing of the employees, how high is the sick leave rate or the personnel turnover, how do management and staff assess one another, and how do the customers rate them?

Can knowledge be quantified in accounts?

Third issue: Could a knowledge account benefit training and development in your workplace?





PLS consult

Added value in PLS	1992/93	1993/94	1994/95	1995/96
Turnover	28,936	39,850	60,506	82,079
Special case costs	-6,415	-10,640	-22,031	+32,313
Other external costs	-3,667	-4,691	-6,037	+9,353
Depreciation	-747	-704	-468	+822
Total costs	10,829	16,035	27,536	42,488
Added value	18,107	23,815	32,970	39,591
Average no. of employees	51	62	80	97
Added value per employee	355	384	412	408

To find a measure of the financial value created in PLS consult through consultancy work, we calculate the added value. This is defined as turn-over less all costs of purchased goods and services as well as depreciation/write-offs. The added value is what is left for interest, salaries, taxes and profit. The table shows the added value per average number of full-time employees (in Dkr 1000s).

How the companies get started



We have to learn to draw up our own knowledge account

“Company managers think in terms of goals and results. They do not initiate any development or training unless they can see their business value. So it is necessary to teach people to measure these things themselves. It must not be a task imposed on the consultants of the accounting department.

Employees must be able to draw up their own knowledge accounts: what business value would it have if I took this or that course of training? Perhaps I will be worth something for other companies - and thus the company's risk of incurring costs by getting rid of me will be less. Perhaps I could operate more machines - and thus help to make the department more flexible.

We must not cultivate knowledge for its own sake, but because it can be used. That is why we must take an interest in what is to be measured and how.”

Jan Bendix,
Graduate Engineer,
Sant + Bendix

A number of companies have already begun to experiment. So far there are none who know which models will prove the “right” ones. But re-viewing a number of them has shown that it is all about four areas: personnel, customers, technology and processes. Within each area there may be statistical information (“What there is”), internal key figures (“What is being done”) and results (“What is achieved”).

Key figures for internal use - PLS consult

PLS consult is a consultancy firm which has worked with knowledge capital since the beginning of the eighties. They measure knowledge capital to ensure that they can maintain the company strategy as regards employee seniority, professional qualifications and age. Once you have described the profile of the personnel, you can set up goals, and you can discuss and adjust them. In other words, this is a knowledge account which primarily shows “what there is” in the form of statistical information for the use of the management within the company. But it is also used externally to arouse the attention of customers who might want to draw up their own knowledge account.

Some companies want to see not just a few key figures but a total account of what they call “personnel economy results”; that is, the knowledge account is making inroads in the actual bookkeeping of the company. By itemizing personnel economy one can also make the managers involved responsible for the economic effects of factors like training within their areas. On the right is an example of a knowledge account from the Telia group.

The Swedish bookkeeping model – Telia

The Telia group

Personnel balance sheet (SKr 1000s)	1995	1994
Assets		
Current assets	13,164	12,792
Recruitment capital	666	388
Training capital	653	792
Fixed assets	44,210	41,875
Total assets	58,693	55,847
Liabilities and equity		
Short-term debt capital	16,079	15,566
Long-term debt capital	20,113	19,253
Untaxed reserves etc.	13	6
Tied-up equity	17,403	15,700
Recruitment capital	666	388
Training capital	653	792
Free reserves, undistributed reserves	3,766	4,142
Total liabilities and equity	58,693	55,847

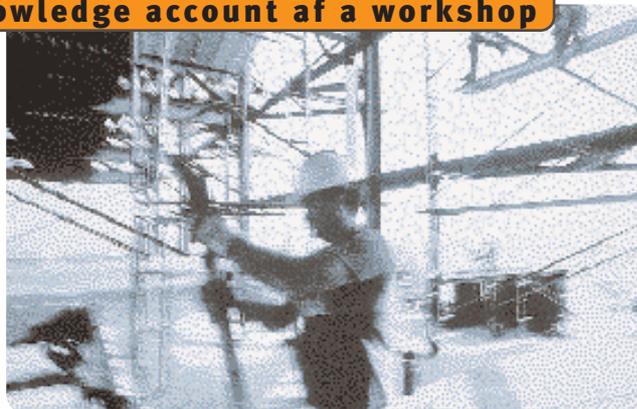
We have included this example to show how a big company begins in purely practical terms to adapt its annual financial statement to the knowledge account concept.

In the limited space available here, we cannot explain Telia’s account in more detail; we can only refer the reader to Telia’s annual financial statement, where those with a special interest in accounting can find explanations of the individual entries. It should however be mentioned that they have only included the changes in competence value that have been affected by training, development and recruitment (or phasing out) in the course of the last three years. The total value of “old competence”, i.e. competence more than three years old, is not included.

In the example from PLS and Telia, as well as other examples, we have so far only encountered companies where knowledge is something very abstract. The reason for this is that these are the very companies that have had the biggest problem with showing what their actual assets consist of; while companies with many machines, patents and buildings have felt less need to do this.

A hypothetical case: Knowledge account of a workshop

But of course other companies can each work with their own type of knowledge account. Here is a hypothetical example which can give some indication of what a medium-size company in the metal industry could include in its knowledge account. We have chosen to construct an example which includes some element of training and development; but for the sake of transparency the example only uses the knowledge account, not the social and ethical account. The example is formulated in very general terms. In reality, of course, one would have to take one’s point of departure in knowledge of the particular company’s quite special situation, market and technology.





Fourth issue:
What factors do you think should be included in a knowledge account so it can be used in your workplace?

Example

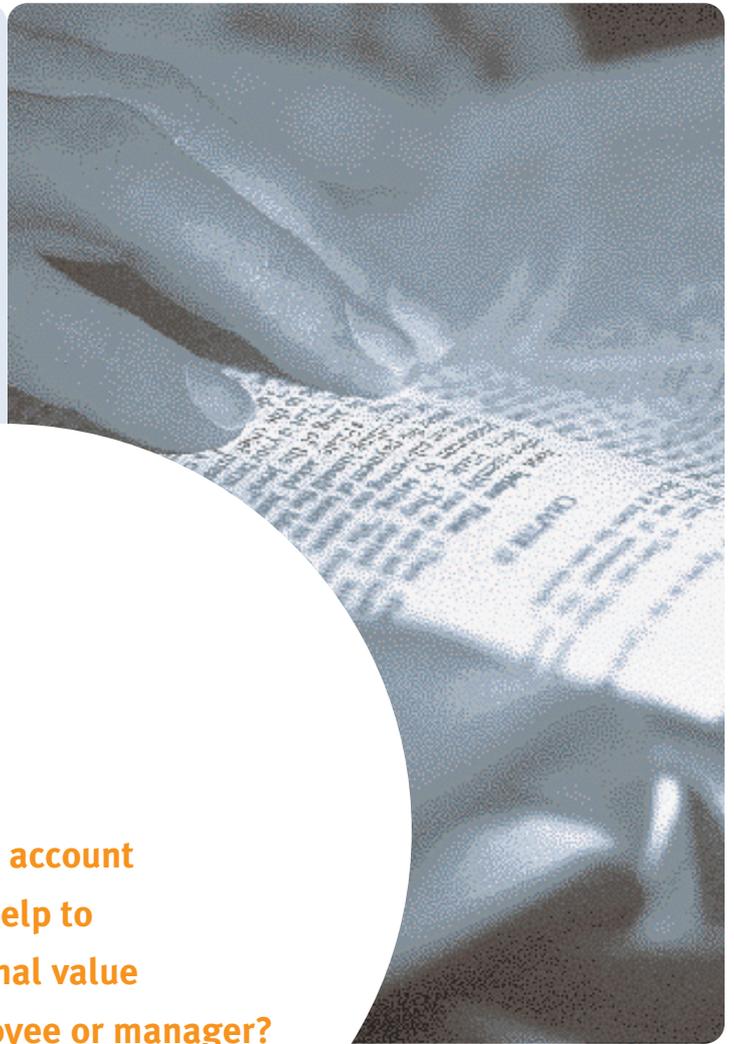
	“What there is” present basis of knowledge	“What is being done” acquire and develop knowledge	“What is achieved” results obtained
Personnel	Seniority and training No. of employees trained in new technology No. of employees with further education No. of employees who can do several jobs	Retraining per employee for new technology Development of new cooperation forms Use of internal learning Organization of work Manager development Job rotation	Number of new ideas per employee Employee satisfaction Accident statistics Production per employee Sick days
Customers	Distribution of customers over production areas Customer seniority	Marketing per customer Course attendance per salesperson	Customer satisfaction No. of customers per employee No. of new customers
Technology and development	Machinery with new technology No. of computerized workplaces Staffing of various production processes (plate work, painting, fitting)	Cost of hardware and software purchases Development costs Process efficiency improvements	Statistics for use of new technology IT in new products Rejects and fault percentages



We must be able to show that we understand what we are doing

“In this part of our company we have invested about a billion kroner. The equipment is operated by about 30 employees. When we invest large amounts, we also need to prove to our shareholders that we understand how to use the plant. It could be exciting to do this with a knowledge account that shows the value of all the money we spend on training our staff. My reservations concern how such an account can be used. If every company can draw up an account according to its own criteria and its own needs, the risk is that outsiders might interpret the situation on the basis of figures that cannot be compared.”

Tommy Jespersen,
Managing Director,
Fibervisions A/S
(formerly Danaklon)



Fifth issue: Would a knowledge account at your workplace help to improve your personal value - either as an employee or manager?

It is important to note that knowledge is much more than craft training, book learning or knowledge of computers. A knowledge account that only surveyed these “hard values” would not be worth much more than the familiar filing cards in the personnel departments.

Being able to cooperate with colleagues, being open to other people’s suggestions, and being able to negotiate without making disagreements into a power struggle - these are all equally important qualifications. Interest in other people, willingness to learn new things, readiness to change or a wide horizon, are equally important qualities. It is often precisely these “soft” abilities that permit the “hard” ones to be exploited so that the result benefits both the workplace and the customers.

In addition, there are qualities that are almost invisible: a talent for ideas; knowing the difference between many ideas and good ideas; loyalty, honesty, and self-awareness.

The different emphases given to “soft” and “hard” knowledge can give knowledge accounts quite different characters.

“Soft” and “hard” values

- an important point for the employees

