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Intellectual capital management – Understanding why Finnish companies do not apply intellectual capital management models[1]

"Everybody talks about intellectual capital, but nobody knows anything about it … Intellectual capital is like soap. It slips out of your hands.[2]"

Intellectual capital management – a new management fashion?

A new concept – intellectual capital (expressed in Finnish as *aineeton pääoma*) – emerged in the early 1990's. The concept is based on many different research fields, such as economics, sociology and management sciences. The basic idea is that, in addition to physical resources, such as financial resources and production machinery, there are numerous other important and valuable resources. It was acknowledged that much of the success of a company – especially that of a knowledge-intensive company – is dependent on its intellectual capital.

The difference between a company's market and book value has been much discussed, and this difference was explained through intellectual capital. A good example of this was the

1 The article is mainly based on Lectio Precursoria presented at Tampere University Technology 29.8.2008.

2 Originally in Finnish: *"Aineettomasta pääomasta puhuvat kaikki, mutta kukaan ei tiedä siitä mitään. …Aineeton pääoma on saippuaa. Se lipsahtelee käsistä."* (Antti Mikkonen, Talouselämä 15.3.2004)

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mobile phone company Nokia: in 1999 the company's market value was 28 times as big as its book value. At the same time there was a lot of discussion about the increase of knowledge work in companies. For example, consulting and designing are typical knowledge work tasks. However, the need for knowledge work also increased in many traditional work tasks. One reason for this was the advances in technology rendering manual work less important. Peter Drucker (1999) is among those writing about knowledge work.

Well known authors in the early development of intellectual capital included Karl-Erik Sveiby (1997), Anne Brooking (1996), Leif Edvinsson (1997), Göran Roos (e.g. Roos et al., 1997) and Thomas Stewart (1997). Most authors agree that intellectual capital includes three categories: human capital, relational capital and structural capital. Human capital consists of the factors pertaining to a company's individual employees and managers, such as competence and motivation. Relational capital includes intangible factors related to a company's external relationships. Examples are customer relationships and reputation. Structural capital consists of factors related to a company's internal structure, such as working atmosphere and processes. Terms other than *aineeton pääoma* are often used in the literature written in Finnish to refer to the same phenomenon. These include *tietopääoma* (knowledge assets), *osaamispääoma* (competence capital) and *aineeton varallisuus* (intangible assets). In the literature written in English the term *intellectual capital* is most commonly used.

The literature considers intellectual capital to be a new phenomenon, which, to be successful, needs to be managed. However, many of the components included in the concept of intellectual capital are old. They have been managed through many traditional management approaches. However, the concept of intellectual capital provides an integrated perspective on a company's intangible resources. Thus the concept of intellectual capital is also an umbrella concept.

Intellectual capital management refers to a managerial activity that identifies, measures, values, controls, develops and reports a company's intellectual capital. To support intellectual capital management, the research community has developed a wide range of models. Some of the models were developed specifically for reporting intellectual capital – either externally or internally. However, most models provide support for internal management purposes. The third group includes models developed to evaluate intellectual capital. It should be noted that many models are suitable for various purposes (e.g. reporting and internal management). However, only few experiences of the practical applications of the models have been reported.

Intellectual capital management models – why managers do not use them?

In my dissertation I have examined the gap between theory and practice. The objective was to understand why companies do not apply models that are commonly known in the intellectual capital literature. The focus of interest was specifically on Finnish companies. As the question above is rather broad and complex to be approached as such, it was divided into four research questions:

1. Are intellectual capital and its management not important for companies?
2. Are models that are commonly known in the literature not applicable in practice?

3. Can intellectual capital management be applied in practice through typical general management approaches? If so, how?
4. What factors affect the choice of whether to apply a model that is commonly known in the literature to support intellectual capital management or not?

Answering these questions provides some possible explanations for why companies do not apply intellectual capital management models. Besides the previous explanations, the reasons for the rare application of models may be that intellectual capital and its management are quite new concepts and therefore managers may not be familiar with the models. Moreover, they may be unaware of the benefits of applying a specific model, such as models providing a holistic perspective on intangible resources and structure intellectual capital management process. On the other hand, models may not have been applied in practice because practice is reluctant to make changes.

My dissertation is an article-based work. In practice, the research questions have been answered through eight scientific papers using different research methods. The empirical material includes interviews, a large amount of data comprising information from the financial statements and many case studies using action research. The papers included in my dissertation have evolved in recent years while I worked on research projects and as a member of a research group *Performance Management Team* at *Tampere University of Technology*. Therefore it is worth mentioning that in addition to myself many other authors have been involved.

At the end of the dissertation I present answers to the four questions posed. The first assumption on intellectual capital and its management not being important for Finnish companies does not seem to hold true. On the contrary intellectual capital and intellectual capital management appear to be important in Finnish companies. For example, the value of the intellectual capital of an average Finnish company is approximately half of the value of the tangible assets of the company. In certain industries (e.g. business services) companies' intellectual capital is even more valuable than their tangible assets. In addition, according to the findings Finnish managers would like to have managerial tools for purposes of the internal development of intellectual capital which indicates that they consider intellectual capital management important.

At the same time, the second assumption (i.e. models are not applicable) was disproved for four models that are commonly known in the intellectual capital literature. Two models that support the internal management of a company, namely, the Meritum Guidelines (Meritum. 2001) and the Danish Guidelines (Danish Ministry of Science, Technology and Innovation, 2003) and two intellectual capital valuation models, CIV (Stewart, 1997) and VAIC™ (Pulic, 2000) were put in practice. The Meritum Guidelines was applied in two knowledge-intensive units of a non profit organisation, Finnish Tax Administration. The application of the Danish Guidelines was carried out in four companies, among others, in a growing international glass technology company, Glaston Corporation. To study the applicability of the two valuation models, they were applied to a large company-level data (provided by Statistics Finland). The data comprised information from the financial statements of around 20,000 Finnish companies during the period 2001–2003.

Given the experiences gained, these four

models can be applied in practice. Moreover, the dissertation demonstrates how to apply CIV, VAIC™, the Meritum Guidelines and the Danish Guidelines. The CIV and VAIC™ methods are quite simple and easy for an external actor to apply to a large company-level data set step-by-step. On the other hand, the Meritum Guidelines and the Danish Guidelines can be applied within an organisation. The two models include various phases that work in general. However, the phases needed adaptation and they were slightly simplified to suit the needs of the organisation.

The third and fourth explanations gained some support and therefore may be explanations for why companies do not apply intellectual capital management models. First, my dissertation shows that *intellectual capital management can be carried out using typical general management approaches and therefore does not necessarily need any specific intellectual capital management model*. Already implemented business process management can provide a reasonable way to carry out intellectual capital management. In practice, intellectual capital management can be applied in each process individually through the following steps: identification of important aspects of intellectual capital, determination of relevant development targets and design of the development work. The previous was carried out in Alko Inc., a Finnish company operating a chain of shops retailing alcoholic beverages. A balanced performance measurement system may also be an appropriate tool to support intellectual capital management which was shown in the three research departments of the TTS Institute, a Finnish non-profit-making organisation. The design of the measurement system provided a way to identify important intellectual capital and measures for it. It was carried out through the following steps: clarifying the strategy, defining the success factors, defining and evaluating the measures and determining the reporting principles and data sources.

Finally, the fourth research question focused on the assumption that *intellectual capital management models may not be suitable in all situations and there may be certain factors affecting the choice of whether to apply a specific model or not*. My dissertation shows that the decision on how to operationalise intellectual capital management – to use a model or not – depends on a number of factors, such as managerial need, existing management systems and resources available.

Concluding thoughts

It is uncertain whether intellectual capital management (or intellectual capital management models) ever will be widely accepted among practitioners. Most likely intellectual capital management will never become a classic like the use of management information systems (MIS) or diversification. Perhaps the management of factors included in intellectual capital does not even need to be carried out as the most part of intellectual capital literature suggests. Perhaps there are other ways for taking into account intellectual capital factors. Intellectual capital, however, as a concept provides managers with a new way of thinking. The concept enables us to focus on all critical factors – not only those that are tangible. Probably intellectual capital thinking can be used in other management classics. ■

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