ACCOUNTING FOR INTELLECTUAL CAPITAL

COUNTRY COVERED: FINLAND

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## SUMMARY
INTRODUCTION

1. Competence is one of the most important production factors in today’s economy. At the same time the market-to-book ratio for knowledge intensive firms is rapidly growing. This, in turn, is claimed to result from the expanding intangible knowledge base of these firms. Intangibles have value on the market, but they do not show up in traditional financial accounts.

2. The competence-based economy requires additional metrics to complement the traditional financial information. In Finland the latest trend is the wide promotion of human resource accounting (HRA), and more broadly, intellectual capital accounting (ICA). Section 1 is a brief introduction to the Finnish private and public sector initiatives concerning the development of the HR- and IC-accounting.

3. To measure the intellectual capital for accounting purposes is, however, not enough. The IC-measures do not have absolute value. They only have contextual value, which depends on how the organisations succeed in implementing the information provided by the measures in use. The main Finnish contribution to the European MERITUM project is to construct the hierarchy for intangibles in different types of organisations, and search for the best company practices in managing the key intangibles. Section 2 introduces the Finnish research framework.

1 HUMAN RESOURCE ACCOUNTING

1.2 HR-reporting in private sector organisations

4. The theoretical reporting frame for human resources follows clearly the human resource accounting theory from the 1960’s (e.g. Flamholtz 1985). In this framework the human resources are classified to include three dimensions, which are quantitative, qualitative, and organisational factors. The quantitative dimension describes the workload the company is capable of accomplishing based on the number of its employees, thus including the numerical statistics of personnel with different status and working tasks. The qualitative dimension describes the specific activities the company is capable of accomplishing based on the individual characteristics of its employees. Accordingly, it covers the employees’ skills, knowledge, and health. The organisational dimension reflects the setting for co-operation thus including information related to the clarity of the company goals and the commitment to them, internal relations and work satisfaction. (Ahonen 1998)

5. The model consistent with the HR-classification scheme is the HR-statement with human resource balance sheet, human resource profit and loss account, and human resource report.

6. Over the last 30 years one of the challenges has been to create a way to calculate the human capital value for the balance sheet capitalisation. Despite the rather generous time period the disclosed HR-balance sheets are still rare. In Finland no organisation has published a HR balance sheet, and the internal efforts are not necessarily considered successful (Eronen 1998).

7. Hence, the statement of human resources has diminished into two parts: human resource profit and loss account and human resource report. The HR profit and loss account is basically similar to the traditional financial document. It is just made more informative by dividing the personnel related costs into subsections. Ahonen (1998) suggests three classes for the human resource costs: renewal costs, development costs, and exhaustion costs. Renewal costs include salaries and wages during vacation, and personnel turnover costs. Development costs include
training, occupational health services, and social activities. Exhaustion costs include absence due to illness and accidents at work, and pensions due to disability.

8. Some of the current examples of the HR profit and loss accounts in Finland are constructed to include the aggregate classes suggested above. Another approach is to forget the aggregates, and just inform about the wages and salaries (paid for office hours, overtime, vacation, and absence due to illness), recruitment costs as well as training and development costs. Both approaches are represented in the few Finnish examples. Nevertheless, among the private sector organisations even the disclosure of the HR profit and loss account is still rather rare.

9. The HR report may contain both financial and non-financial indicators. For the report to be truly informative, it should according to Ahonen (1998) include aspects from all three HR classification categories thus informing on the number of employees, their skills, knowledge and motivation as well as the organisation of work.

10. One has, however, to bear in mind that the terminology is still very much developing, and thus the HR report can include practically anything that has to do with the employees. The disclosures so far range from the basic statistical facts like age structure and educational background to informational packages revealing the firm’s personnel strategies and knowledge management practices.

11. Despite the wide interest in HR- (and IC-) reporting issues, only few organisations disclose a separate HR-statement. Among these organisations are ABB (Finland) Oy, Engel-yhtymä, Nokian Tyres and KPMG Wideri Oy Ab. Most companies still include the employee-related information in a couple of pages inside the annual report – a fact, that clearly reveals a gap between the theoretical recommendations and company practices.

12. The ETLA database including all firms listed on the official list of the Helsinki Stock Exchange 15 years back provides details about the frequency of the HR-disclosure inside the annual reports. As shown in Figure 1, a narrative has been by far the most common way to inform the external stakeholders about the HR-related issues, and still disclosed ever only by 60% of the organisations. If instead of firms (N=126) the firm observation years (N=904) are counted, the HR-disclosure is even less frequent, for example for a HR-narrative only 40%. And, although the annual reports of 1997 experienced an advent of the HR-disclosure, of the 83 listed companies only 34% published a HR-narrative, 13% HR-ratios, and 7% HR-costs. For comparison, ten years earlier, in 1987, the corresponding percentages were 40%, 20%, and 10%, respectively (Eronen 1999).
13. One of the factors contributing to the rather modest interest in the disclosure of the HR-related information is clearly the lack of standards for both the indicators to be used and the contents of these indicators. In addition, the organisations are searching for alternatives to the reports concentrating solely on the human resources.

14. A universal reporting model for intangibles might prove to be quite an impossible target due to the obvious differences between firms operating even within the same industry. What is nevertheless needed are clear and explicit definitional standards for different HR- (and IC-) indicators. This would provide a lower bound for comparability across firms using a similar set of indicators.

15. The obvious need for standards and clarifying information was highly present in company interviews completed in late 1997. A selected number of Finnish firms representing different industries were approached with the aim of exploring their attitudes towards the HRA as well as the prevailing HR-reporting practices. The first impressions mediated by the interviews were the growing interest in the HRA issues in general, the need for more detailed information and explicit reporting models, and the need for indicators outside the scope of the HRA. Other implications from the interviews documented in Eronen (1998) were that
   - regardless of not publishing the employee-related information the companies basically do pay attention to the HR issues, internally
   - the HR-statement with the balance sheet and the profit and loss account was considered static and not very informative
   - the HR balance sheet was regarded as an interesting phenomenon, but difficult to construct properly and not so useful for the managerial decision making
   - the calculating of the employee-related costs (with the exception of training and development) was surprisingly rare
   - the prevailing HR-reporting was mainly non-financial with narratives, trends and ratios.

1.3 Governmental policies for HRA promotion

16. The Ministry of Finance has been the driving force in promoting the HRA practices in public sector organisations. In March 1995 the ministry started a HRA development project in-
volving 9 pilot organisations. This pioneering effort aimed at integrating HRA to normal reporting practices in public sector organisations, supporting the HRA process in the pilot organisations and making use of their experiences elsewhere, developing a HRA framework as well as IT-applications for it, organising training sessions, and publishing a HRA-handbook. The 9 pilot organisations constructed HR-statements covering the period of 1994-95. The resulting handbook was published in 1996. This book covers the public sector reporting framework, the recommended HR-indicators and instructions for calculating them as well as the trial and error experiences of the pilot organisations (Ministry of Finance 1996).

17. In March 1997 the Ministry of Finance set a follow-up project with the 9 pilots. The aim of this effort was to further promote the introduction and implementation of the HR-statements, follow and support the completing of the HR-statements, carry out the necessary HRA development projects, take care of education and training, and provide information for comparison (Ministry of Finance 1998).

18. The disclosure of the HR-statements is recommended in different governmental reports. So far these are only recommendations based on voluntary actions, not statutory requirements. Starting 1996 an aggregate HR-statement for the public sector has been constructed to provide information for comparison (ibid.).

19. The information content of the general public sector HRA-model is as follows (Ministry of Finance 1996):

1. **Current personnel resources**
   - Amount and structure
   - Use of the working time
   - Labour costs
   - Travel expenses

2. **Future need for personnel resources**
   - Demand and supply of the personnel

3. **Development and support of HR**
   3.1 **Motivation and ability to work**
      - Work satisfaction
      - Competence
      - Work ability
      - Absence due to illness
      - Absence due to occupational accidents
      - Personnel turnover

   3.2 **Personnel investments**
      - Development and support of work satisfaction and work ability
      - Training and educational activities
      - Occupational health services
      - Replacement costs of the personnel

4. **HR output and productivity**
   - Financial indicators
   - Customer satisfaction
   - Job requirements, performance, merit pay
5  Financial HRA information

- Cost and income calculation
- Balance sheet calculation

20. A survey among the public sector organisations indicates an increasing interest in the HRA practices. 88% of the respondents have some degree of knowledge about the HRA, 28% have implemented the HRA practices, 36% have planned to start the activity, and 19% have tested the feasibility of the activity. 24% of the respondents found HRA necessary, even 70% useful and only 3% unnecessary (Ministry of Finance 1998).

21. The Ministry of Education recommends the HRA as a means for promoting the learning on the job as part of the Finnish national strategy for lifelong learning. They suggest that labour market organisations, research institutes and the state start both national and industry-level projects to develop a HRA-model that reflects the competence of the personnel and the changes in it (Ministry of Education 1997). This effort is targeted as well to the public sector as to the private sector organisations.

22. In connection with the implementation of the national strategy for lifelong learning Karjalainen (1998) collected company experiences from five IC-reporting models: HR-statement (public and private sector cases), intangible assets monitor (Sveiby 1997), company barometer – model (Liukkonen 1997) and the Balanced Scorecard (Kaplan & Norton 1996). Each model was ranked according to its ability to enhance lifelong learning in organisations and its value as a knowledge management tool.

23. The study shows that one of the main reasons for implementing an IC-reporting model is the need for a knowledge development tool. The management is more and more about managing aggregates. Thus the financial figures need to be supplemented with other information having an impact on the organisational potential for wealth creation. The real challenge is to extract the value relevant information out of the complex environment, and link it to day-to-day business management (Karjalainen 1998).

24. Generally the IC-models were considered as future oriented and well-functioning management tools for planning and implementing training and development programs. Further, the process of implementing a management or reporting model was in itself regarded as an effective organisational learning process. The HR-statement was considered static and as such giving not enough competence-related information. The model was nevertheless seen useful as an impulse or as a supportive tool in implementing organisational change (ibid).

2  FROM HR TO IC – THE FINNISH MERITUM PROJECT

25. MERITUM (Measuring intangibles to understand and improve innovation management), a EU-financed multi-country research project, which started in November 1998, aims at producing a set of guidelines to measure and disclose intangibles in order to improve the decision making process of managers and stakeholders. The project is divided into four parts: (1) produce a classification of intangibles, (2) analyse management control systems at a firm level, (3) assess the relevance of intangibles in the capital markets, and (4) produce and test a set of guidelines for the measurement and disclosure of intangibles. The project participants include researchers and organisations from Finland, Sweden, Norway, Denmark, France, and Spain. The Finnish partners
are The Research Institute of the Finnish Economy (contractor) and the Swedish School of Economics and Business Administration in Helsinki.

26. The objectives of the management control (MC-) study (activity (2) in MERITUM) is to analyse management and control systems at the firm level and to reveal European best practices in

- measuring investments in intangibles and appraising the outcome from those investments,
- using those outcomes for management decision making and
- disclosing information on intangibles for the use of stakeholders.

In Finland the management control study was started in late February 1999.

27. The classification activity (1) produced the main frame of reference (Figure 2) for characterising the intangibles of Finnish firms. The suggested hierarchy stems from the expected return of a company, which, in turn, is expected to result from the interaction of tangible and commercially exploitable intangible resources. Further, so called generative intangible resources are assumed to be the basis of commercial intangibles.

![Figure 2 Main frame of reference: intangible resources and expected return](image)

Source: Ahonen (1999)

28. Figure 2 is based on the presumption that the commercial intangibles are the outcome of the efficient use of the generative intangibles. Thus, for example, patents result either from the actions of the competent personnel or from intelligent acquisition decisions. In both cases the generative intangibles increase the commercial intangible resource base, which in turn may lead to increasing return expectations for the firm.

2.1 Research questions and methods

29. The project aims at answering the following five questions:

- Which intangibles attribute most strongly to the financial performance of the company?
- What indicators does the company use to measure these intangibles?
- How does the company develop these intangibles?
- How does the company control the development of these intangibles?
- How does the company measure the effectiveness of the intangible resource development?
The study will be based on the experience of 10 case-organisations, and involves the following steps: selection of case-organisations, description of case-organisations based on the historical data, interview with two analysts concerning the case-organisations and interview with key-persons in the case-organisations.

### 2.2 Selection of case organisations

As the purpose of the MC-study is to search for European best practices in measuring and managing intangibles in organisations, the case organisations should be chosen to represent a) high intangible intensity, and b) innovative management control and disclosure practices regarding the key intangibles.

The market value captures investors’ perceptions regarding the future opportunities of a firm. On the efficient market, the market value is assumed to reflect all relevant information regarding the particular firm, and is thus considered as a proper estimate for the firm’s value. This means that even the intangibles, which are not included in the financial accounting value of a firm, are supposed to be included in the market valuation.

The Market Value Added (MVA) shows the absolute difference between the market and accounting valuation of a firm. It is also identical to the discounted future EVAs of a firm, thus being a forward-looking version of the economic value added-thinking. The market-to-book ratio is a firm’s market value divided by its book value, and thus shows the relation between the market and accounting valuation of a firm. Compared to the MVA approach, the advantage of the market-to-book ratio is that it is not biased towards larger firms. However, supposing efficient markets, both indicators reflect the firm’s intangible intensity.

The Finnish case-companies for the MC-study are chosen as well among the top MVA as among the top market-to-book companies. The final listing of top 10 is completed so that both industries and firm sizes are duly represented. Furthermore, some of the chosen companies are known as firms working on the development of their intangible accounting practices. Due to the market value based selection process all case organisations are listed on the Helsinki Stock Exchange.

### 2.3 Analyst interviews

The following questions concerning the case-organisations are posed for the analysts:
- What factors contribute to the high MVA for the selected company?
- Which commercial intangibles are behind the high MVA?
- Which generative intangibles are behind the commercial intangibles in question?

The aim is thus to find out the hierarchy of intangibles in the case organisations in accordance with the figure 2.

### 2.4 Key-person interviews in case-organisations

The companies are interviewed twice:
- interview I: recognising key-person(s) through a contact person in the organisation
- interview II: interviewing key-person(s)
37. The person interviewed in the first session is someone from the strategic management with years of experience from the company and its personnel. During the first interview the company specific intangibles are clarified. The opinion of the company representative concerning the key intangibles is complemented with the information collected earlier by interviewing the analysts. The goal is then to identify the key departments and persons that are involved in the management of the company specific intangibles.

38. The research questions (see 29.) are posed during the second round of interviews to the persons identified during the first meeting. Depending on the company specific intangibles, the potential second round interviewees are from:
   - general management (general administration, strategy issues)
   - human resources (recruitment, training and development)
   - production (processes, quality control, organisations, teams)
   - marketing (customer relations, brands)
   - R&D (patents, innovations, licences)

2.5 Current status of the project

39. Many of the approached companies have accepted the proposal for the research cooperation. Analyst interviews concerning these firms have been completed. The first interviews with the participating organisations have been completed as well, and the second round has partly started. It is, however, too early for even preliminary results concerning the management and measurement practices in these firms.

SUMMARY

40. Human resource accounting became one of the top ten discussion topics in Finland during the spring 1997. First executive conferences were fully booked, and companies were advised to release separate HR-statements or at least disclose the key HR-indicators in annual reports. The interest in the subject in private sector organisations was growing rapidly. The trend, however, seems to be more and more towards broader intellectual capital accounting. The organisations are searching for alternatives to the HR-statements and purely financial metrics and indicators.

41. The Ministry of Finance introduced an HRA development project in 1995. This initiative was targeted to the public sector organisations. The HRA-handbook resulting from the pioneering project is a functional guide into defining and calculating the HR-indicators in the public sector reporting model. The Ministry of Education promotes the development of an HRA-model as part of the Finnish national strategy for lifelong learning.

42. The main research regarding the HR- and IC-accounting includes Ahonen (1992), Eronen (1997, 1998, 1999) and Karjalainen (1998). The latest research initiatives have on a large degree been carried out at The Research Institute of the Finnish Economy ETLA. ETLA is also a contracting partner in an EU-financed research initiative MERITUM (Measuring intangibles to understand and improve innovation management), which started in late 1998. The main Finnish contribution to this project will be to construct a hierarchy for intangibles, and search for the best company practices in measuring and managing the key intangibles.
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