

## **PRISM WP7: Technical Output Report Sept 02**

# **Banking & Venture Capital Metrics**

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### **1. Objectives of WP 7**

One of the objectives of WP 7 is to find a series of indicators for valuation of intangibles in a matter of lending or investing. A simple practicable model with these indicators will be designed to carry out the empirical research study in the banking and venture capital sector.

### **2. Course of action**

As starting point will we identify and define a series of relevant and practicable indicators. User's (bankers and venture capitalists) opinions and attitudes are important in this defining process. It should be considered, what the user's needs and requirements are? It is also important to remember that, since the scope of the issues are relatively new and untouched, the identification and defining process should be done in a close dialog with users participation.

In order to provide the starting point for these dialogs it was necessary to going through the existing theoretical literature which deals with valuation of intangibles, e.g., intellectual capital reporting and other related models. In that matter there has been carried out an analysis of the coherence between indicators of intangibles and expected effects on valuation.

### **3. Temporary Result**

The common and generally accepted accounting standards contain measuring methods, which are materially generated around the tangible assets. These standards are based on marked value capitalization for evaluation of assets, e.g., general market value of a property in a statement. But for the intangible assets there are neither standards nor possibility of a comparison with the market value.

For that reason banks and some other financial institutions give a high priority to tangible assets in their valuation process of a project. They usually avoid attention to the intangible assets.

However the operations has changed during a certain time of period. Those for operations tangible assets are reducing and the intangible assets are growing by time. The issue here force banks and venture capitals to pay attention to the matter of intangibles.

A loan department wishes by preference to have a safety in tangibles. This makes it possible for the department to minimize the risk of lending. If it is not possible then the department will consider carefully about the engagement in lending. However in the same time it shows that, it is crucial for the lending department to have a focus and consideration about the cash flow of the operation.

There is a distinguish between the loan department of a bank and the investment department of a venture capital firm. In a bank there is a posture of taking security in tangibles. If there are not enough of these tangibles, then will department consider looking at the cash flow of the operation. A positive cash flow under lending period is the ultimate persuade factor for the lending decisions. In the case of the investment department of a venture capital the venture capitalist is interested in a long-term solutions to minimizing the risk of an investment project. The venture capitalist will consider long-term objectives of increasing value of the investment project, though there is a period with a negative cash flow.

Paradoxical are there the same focus for both lending bank and venture capital firm on the cash flow. Materially the time horizon and the level are different. The lending banks are considering the cash flow at the shot-run, while the venture capitals are willing to look at long-run pattern of the operations cash flow.

The lending bank are satisfied with the money flow that ensure back payment of the loan, while it is most important matter for the venture capitals that the extent of long-term cash flow contribute to the increase in value of operation.

When we presented our idea of a possible valuation and measuring method for intangible assets, both groups of bankers and venture capitalists were agreed that the method should be very simple and user-friendly. And the adaptability of a simple model was the key to its success. It is important that a model for measuring intangibles is geared to suit different kind of operation and branch. However the measuring indicators should work as a series of conditions for predicted cash flows.

#### **4. Model discussion**

Concerning a simple model of measuring intangibles it is most evident to try to think out of box and maybe act upside down. It is clearly pointed out that the final notice of the assessment should be a positive development in the operations cash flow. Then it might be appropriate to take look at possible constraint of this desired cash flow.

By starting point in a traditional budget model containing income statement, balance and cash position, it is possible to dig a little dipper in to conditions under which the operations cash flow are generated, here including intangible factors.

Budget constrains can be divided in to material and immaterial factors. The material factors contains of a tangible set of assets, e.g., buildings, production equipment, inventory etc. The immaterial factors can again be divided in to conditional human and non-human factors. The conditional non-human factors are patents, rights, trademarks etc. Value of these factors is not directly determined by human competencies. While the conditional human factors are essentially starting point for the non-measurable indicators, the value of these factors are

directly related and determined by human competencies. As an example, a measure for operations corporate strategy, customer satisfaction, market share, ability to develop new product, etc. are directly determined by those human competencies in an organization. There is also another issue about these conditional human factors. For the most they should be related to each other or another kind of factors to make sense. A measure for customer satisfaction without a measure for market share, and a measure for market share without a measure for earnings do not make sense. So, it is all about cause and effect of the factors, which contribute as conditional substances to a budget model of forecasting operations value. The cause and effect relationship between the factors is the main concern in valuing the future cash flow.

A model for valuing the conditional human factors for intangible assets contains of four main categories:

- Organization related indicators
- Market related indicators
- Product related indicators
- Process related indicators

These four main categories representing each a group of indicators, which defines a relative or absolute expression. The expressions should to be future-oriented. This is based on what lending banks and venture capitals are expecting from a model of forecasting long or short-term cash flow for an operation. The past has just a limited meaning for valuation process. Those historic achieved results are just standard of references for the future estimates. By the fact it is important that calculation and illustration of the conditional human indicators either starts with a benchmark of operations historic performance or with a comparison of general condition of branch.

The model should be a simple understanding and general tool for stating the value of the intangible assets in a matter of investing or lending. Simple, because the complex models are difficult and time demanding to apply in practice. And general, because the model should be suitable for using in different cases of lending and investing projects.

The model should also be flexible thus for ranking of indicators by degree of importance for valuation or risk analysis. The ranking process should be done by well-argued reasons. The process is in the same way of collecting data for traditional budget model that appears in standard accounting principles. The difference is about the type of information, which in this case is characterized as quantitative data. In the standard accounting principles it is expected that the information be produced as understandable, relevant, reliable and comparative as possible. These conditions should also be applied for indicators with quantitative data.

The understandability of information talk about it self, while by relevant information means that the information should cover the needs for useful data in decision making situations. Even though the information are relevant they won't be employed for decision making if the decision maker has no confidence in them. Reliability is therefore a fundamental demand for selecting the relevant data.

The decision maker also has a need for comparing the gathered information for a period of time. It should be possible to use either the firm specific data or the branch specific information as a standard of reference.

## **5. Conclusions of Previous Work**

Based on the undertaken researches it is clear that, if the lending banks and venture capitalists should adopt an attitude to valuation of intangibles, then this value has to be based on expectation of producing a positive future cash flow.

Lending banks focuses on a cash flows which in short-run ensures paybacks, and venture capitalists focuses on a long run increase in value that in case is again related to a positive cash flow or its expectation.

If a model had to work in practice then it should be very simple and without too many complex indicators.

It is important to set up a series of conditions for describing a future cash flow. If it is about operations with few material assets then there is relatively often the immaterial assets that defines the operations value added. Description, quantifying and understanding of these immaterial factors are important for generating a clear comprehension of the facts of a positive future cash flow.

Intellectual capital statements and other similar models of valuing the intangibles have also employed a description of the immaterial assets. Our model will try to take an advantage of these models and their strength.

## **6. Framework for Future work program**

The temporary conclusion, "the ability of generating a positive future cash flow is the measurable element for the valuation of immaterial assets", should be discussed with the users (lending banks and venture capitalists) of the model. Here will the fundamental concept of the model be described and related to the future value of a cash flow.

Based on these discussions a plan will be worked out to undertake the definitions of the relevant and useful indicators of intangibles. The cause and effect relation between these indicators will be exaggerated.

The process expected last to the end this year. From the beginning of 2003 to the end of April 2003 will the prepared model be tasted on selected lending banks and venture capitals.