MAIN APPROACHES IN MEASURING INTANGIBLE ASSETS

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Abstract

In the 21st century much emphasis is being laid on intangible assets as they are major contributors to the market values of firms. They are vital strategic resources and are the critical sources of competitive differentiation. Wealth and growth of firms in today’s market place are governed mainly by them. Intangible assets and intellectual capital are the sources of value and the levers for sustainable business performance in today's competitive economic context. They are the sources of competitive advantages and above normal financial returns. [1] In fact, with intangibles, some of the basic economic rules seem to be breaking down.

Developing indicators for measuring or assessing knowledge resources is difficult due to the intangible nature of knowledge. However, the measurement of knowledge is considered one of the key factors in the implementation of knowledge management strategy, along with culture, technology and infrastructure. Another reason for developing these indicators is that it can highlight the benefits and advantages of knowledge management.

Keywords: intellectual capital, intangible assets, measurement, measuring models.

Introduction

Intangible assets are of increasing importance for the corporate value creation processes of all kind of organizations [3]. This has severe consequences for internal and external reporting and hence for the decision making processes. Intangibles treated as resources of distinctive value should then be developed and allocated according to “objective” measures and according to excepted economic criteria.

Intangible asset are an identifiable non-monetary asset without physical substance. An asset is a resource that is controlled by the entity as a result of past events (for example, purchase or self-creation) and from which future economic benefits (inflows of cash or other assets) are expected. Thus, the three critical attributes of an intangible asset are:

- identifiability
- control (power to obtain benefits from the asset)
- future economic benefits (such as revenues or reduced future costs)
The recognition of an item as an intangible asset requires an entity to demonstrate that the item meets:

(a) the definition of an intangible asset; and

(b) the recognition criteria.

An asset is identifiable if it either:

(a) is separable, is capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, identifiable asset or liability, regardless of whether the entity intends to do so; or

(b) arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.

An intangible asset shall be recognised if, and only if:

(a) it is probable that the expected future economic benefits that are attributable to the asset will flow to the entity;

(b) the cost of the asset can be measured reliably.

There are both internal and external factors that require the firm to assess how to managed knowledge, considered strategic resources of the company:

- Managers and leaders of want to know the revenue from knowledge management activities undertaken in the company;

- Employees want to know what the organization can do for them to further develop their skills and increase their value in the labor market. Employees, as bearers of knowledge will continuously learn and want to work for an organization that values knowledge;

- Given the fact that some companies Intellectual Capital appears in balance sheets, measuring, evaluating Intellectual Capital is not just a trend, but an important tool that will be increasingly used in the future. Therefore, it is expected that business owners insist that knowledge resources are used as efficiently and be evaluated, because knowledge is a substantial part of the intrinsic value of the organization.

Characteristics of intellectual capital

Although Intellectual Capital is similar to tangible assets in its potential for generating future cash flows, it is radically different from tangible capital in the following respects:

- Intellectual assets are non-rival assets. Unlike physical assets which can only be used for doing one thing at a time, intellectual assets can be multiplexed. For example, a customer support system can provide support to thousands of customers at the same time. It is this ability to scale with need that makes intellectual assets far more superior to physical assets.

- Human Capital and Relational Capital cannot be owned, but have to be shared with employees and suppliers and customers. Growing this kind of capital therefore requires careful nurturing.

- Structural capital is an intangible asset that can be owned and controlled by managers. However, it cannot be traded easily since no markets exist for this purpose. Moreover, customers do not care about the Structural capital of their Suppliers since every one likes dealing directly with real human beings rather than with systems.

- Structural capital, in the form of just-in-time procurement processes and real time inventory control systems can be substituted for expensive capital expenditure such as storage warehouses. Hence the knowledge economy has opened up opportunities for every firm to explore whether inexpensive intangible assets can do the work of costly physical assets.
Firms that leverage their intellectual capital to do knowledge work are able to generate higher margin of profits than those who provide mass-produced solutions.

Human, Structural and Relational Capital often work together in judicious combinations to give rise to core competencies that assume strategic significance. Hence it is not enough to invest in people, systems and customers separately, but in combinations that produce end value.

There are three types of intellectual capital (IC):

- **Human Capital** is composed of the skills, talents, knowledge and expertise of employees. Human capital can be best described as the organization's collective ability to extract the best solutions for customers using individual knowledge. Human capital lies in the people who come in and out the door every day.

- **Capital Structure** is the knowledge that has been captured and institutionalized in the organization's processes and culture. Capital structure includes patents, intellectual property, software, sites, trademarks and in general all documents stating the organization's know-how. Capital structure can be stored as procedures, databases, expert systems, organizational charts, softwares for decision and knowledge management systems. Put simply, structural capital are intangible assets that remain after leaving evening all employees.

- **Capital Market** refers to all the relationships we develop with the external organization, such as customers satisfied or unsatisfied and loyalty towards the company's brand recognition enjoyed by the company's reputation, business relationships, the successfully or unsuccessfully with external partners, vendors, etc.. The value of intellectual capital be assessed in terms of quantity and quality of these relationships that were built over time.

A key objective of knowledge management is to support and manage all the components of intellectual capital, leading to superior financial performance.

An effective knowledge management usually contribute to the development of intellectual capital.

Measuring the added value of knowledge management therefore means measuring its contribution to the development of intellectual capital.

**Models for measuring intellectual capital**

The present lack of an integrated approach to a comprehensive valuation and reporting is due to a marginal demand in theory and practice until the late nineties. Prominent exceptions are [4] who developed a very advanced framework on human capital in the early seventies. The reason can be found in insufficient managerial capacities, that were already occupied with the task of monitoring the not trivial financial matters. Since then the competitive pressure increased dramatically due to globalization, market liberalization and new technologies. This forced organizations to look for additional reserves of productivity and almost naturally led to the less convenient traceable intangible assets.

They seem to represent an almost infinite source of wealth because of their generic characteristic: intangibles are not depreciated after use – in fact, they seem to have a catalytic character. They can be reused and grow in value when shared. Therefore they create positive returns, an effect neglected by classical economics theory.

Over time, several techniques have emerged to measure intellectual capital. However, the lack of uniform terminology indicates that more work is needed to make a measurement of intellectual capital management discipline recognized. Sneiby [7] grouped all existing approaches for measuring intellectual capital in five categories:
- Models based on direct evaluation of intellectual capital - to estimate the value of intangible assets by identifying various components and measuring these components, either separately or together.
- Models that are based on market value - intellectual capital is calculated as the difference between the market value of the company and the share capital.
- Models based on asset income - based on traditional accounting concepts. In these models, using formulas that include gross income and other indicators to evaluate intellectual capital.
- Models based on frame scores - define the components of intellectual capital (human capital, structural capital and capital market) and calculated indexes are shown in graphs and scores.

These models are broader than financial and incorporates concepts such as human capital, structural capital and organizational capital market. These models offer more relevant results in terms of intellectual capital measurement approach is more balanced as taking into account non-financial aspects. Since intellectual capital is intangible and influenced by a complex socio-political and cultural factors, the use of these models for evaluating and measuring knowledge management ensures appropriate indicators - even if they are not widely accepted. Most popular methods are:

1) The score balanced framework (Kaplan and Norton, 1996): This technique is designed to evaluate the strategy and business objectives and has four perspectives, including three non-financial and intangible.
   - Finance: the center is profitability and include evaluating operating income and income brought added value of capital invested.
   - Customers: focus on the benefits desired by customers, as reflected in the company's strategy, this includes customer satisfaction, market share, etc..
   - Internal business processes: focus on what is necessary to make the company to be successful, such as process innovation, after-sales service, etc..
   - Learning and development: This includes factors such as employee skills, organizational alignment, etc..

2) Intangible Assets Monitor [7] is a technique that uses three categories: • human skills - analyzing values, experience, social skills and education employees, none of these elements netting owned organization.
   - External structure - analyzes how the organization is perceived externally, in terms of trademarks, brands, images, relationships with customers, suppliers and partners, etc..
   - Internal structure - analyze elements owned company, such as databases, processes, models, documents, patents and trade secrets.

3) The Skandia Navigator, (Edvinsson and Malone 1997) is a technique invented by Skandia AFS, a financial services company in Sweden. The indicators are organized into five categories:
   - Annual financial - are traditional financial indicators
   - Indicators to evaluate the relationship between company and customer
   - Process indicators - examines how the organization uses various tools to create value
   - Indicators for measuring the level of innovation and development - focuses on how the company is preparing for the future in relation to customers, markets, products and services, strategic partnerships, infrastructure, etc..
   - Indicators for human resources: productivity measures, values, dedication etc.

4) Intellectual Capital Index (Roos Edvinsson, and Dragonetti, 1997) [6] - This technique is based on four types of indices, united in one.
These four indices are the index of human resources, infrastructure index index index innovation and structural capital.

Brainpower index reflects changes in the market value of the firm changes. It is clear that all the above models share three elements of intellectual capital: human capital, structural capital and market.

Conclusions

Intangible assets and intellectual capital are the sources of value and the levers for sustainable business performance in today's competitive economic context. They are the sources of competitive advantages and above normal financial returns. In fact, with intangibles, some of the basic economic rules seem to be breaking down. “The aim of performance measures should be to provide meaningful information that helps to reduce uncertainty about intellectual capital and enables us to learn. Measures ought to help us make better informed decisions that enable us to improve our performance.” [5]

The Intellectual Capital of a firm is the sum total of its Human Capital, Structural Capital and Relational Capital. These assets form a source of distinct competitive advantage and distinguish the performance of one firm from the other.

Having control on such assets enables effective internal governance on the one hand and succinct external communications on the other.

Hence it makes sense for firms to measure, monitor and report their Intellectual Capital.
References