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CHOSEN ASPECTS OF ERA OF NEW ECONOMY AND HUMAN CAPITAL MANAGEMENT SOLUTIONS*

Identifying a firm's assets, especially its intellectual assets the proprietary knowledge expressed as a recipe, formula, trade secret, invention, program, or process – has become critical to a company's overall vision and strategic plan is essential in such transactions as stock offerings or mergers. Important is a valuable distillation for corporate and financial executives, managers, researchers, and analysts of IC's basic working concepts and definitions. A plethora of methods exists for measuring knowledge capital, e.g., IC Rating® of Intellectual Capital (Sweden) and The VAIC. Research found over 50 different measurement methods, which we have grouped into 4 main approaches.

Keywords: *new economy; intellectual capital; human capital management.*

Казімір Крупа

ОКРЕМІ АСПЕКТИ ЕРИ "НОВОЇ ЕКОНОМІКИ" ТА НОВІ РІШЕННЯ З УПРАВЛІННЯ ЛЮДСЬКИМ КАПІТАЛОМ

У статті показано, що оцінювання активів фірми, особливо інтелектуальних, що виражені через рецепт, формулу, промислову таємницю, винахід або програму, процес, стало сьогодні життєвою необхідністю, особливо для стратегічного планування. Самій концепції інтелектуального капіталу та множині його визначень приділяють увагу як топ-менеджери, так і аналітики. Існує значна кількість методів вимірювання людського капіталу, наприклад. IC Rating of Intellectual Capital (Швеція) та The VAIC. Усього існує більше 50 таких методик, які автором статті було поділено на 4 групи.

Ключові слова: *"нова економіка"; інтелектуальний капітал; управління людським капіталом.*

Літ. 13.

Казимир Крупа

ОТДЕЛЬНЫЕ АСПЕКТЫ ЭРЫ "НОВОЙ ЭКОНОМИКИ" И НОВЫЕ РЕШЕНИЯ ПО УПРАВЛЕНИЮ ЧЕЛОВЕЧЕСКИМ КАПИТАЛОМ

В статье показано, что оценка активов фирмы, особенно интеллектуальных, выраженных через рецепт, формулу, промышленную тайну, изобретение или программу, процесс, стала сегодня жизненной необходимостью, особенно для стратегического планирования. Самой концепции интеллектуального капитала и множеству его определений уделяют внимание как топ-менеджеры, так и аналитики. Существует множество методов измерения человеческого капитала, например, IC Rating of Intellectual Capital (Швеция) и The VAIC. Всего существует более 50 таких методик, которые автор статьи поделил на 4 группы.

Ключевые слова: *"новая экономика"; интеллектуальный капитал, управление человеческим капиталом.*

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1. Measuring knowledge capital. New strategies for business success are based on shifting the focus from information to knowledge: 50% of the fastest-growing companies can be described as "knowledge companies", those that employ highly skilled, highly educated people who sell their knowledge rather than products. They provide tools for measuring intangible assets such as competent and creative employees, patents, brand names, and company reputation. Some archetypal knowledge companies are consultancy firms, advertising agencies, software companies, and architecture firms. Few of today's companies improve performance through knowledge or learning. This is because few managers understand how to make a business of knowledge. They focus on explicit knowledge (information) instead of implicit human knowledge. Investing in information technology instead of people, they only know how to measure performance in money [14].

According to Patrick H. Sullivan, identifying a firm's assets, especially its intellectual assets, the proprietary knowledge expressed as a recipe, formula, trade secret, invention, program, or process – has become critical to a company's overall vision and strategic plan and essential in such transactions as stock offerings or mergers [7]. In the era of knowledge-based companies, where a firm's genius and future lies in its ideas, a firm's collective know-how has become a measurable commodity and a part of its bottom line as the condition of its cash investments, into plant and equipment. Extracting and measuring the real value of knowledge is essential for any corporate head who knows how high stakes have become for corporate survival in the information age, where an innovative idea is as good as, if not better than, gold [11]. Value-driven intellectual capital (VDIC) is a very creative corporate and financial idea to the new world of intangible assets about what we are and how to convert us into cash or strategic position. VDIC explains a new, boundary expanding world of intellectual assets where translating an innovative idea into bottom-line profits involves a tightly focused strategy with clear directives for making it happen (no spin-off).

Experts tell (e.g., S. Carnicky, T. A. Stewart) that important is a valuable distillation for corporate and financial executives, managers, researchers, and analysts of IC's basic working concepts and definitions [1; 5].

BUSINESS ACCELERATOR 06 is the founding event at the market of innovation of the region, dedicated to entrepreneurs looking to sell their innovative product/service and/or seeking finance to accelerate their development. The originality of Business Accelerator 06 is its ability to establish and boost business relationships within region of Nice. Over 50 innovative companies are expected, buyers/decision makers, investors (with an emphasis on private investors, individuals and investment funds) and accompanying experts present. Business Accelerators 06 is organized by the group "Chain of Innovation" of the SED Committee (Sustainable Economic Development) of UPE06. Very important is the principle underlying value creation and value extraction, the concepts and strategies used by successful companies, the sources of value for knowledge companies, and the mechanisms used to convert that value into real profits. And since it is the managerial talent that turns intellectual property into business assets, the book provides an arsenal of key concepts, methods, and processes for aligning with and using intellectual property as an active element of a firm's business strategies (goodwill accounting, e.g., Statement of Financial Accounting Standards no. 142 – SFAS 142 [14]). SFAS 142 made two major changes

to goodwill accounting: a) amortization of all goodwill ceased, regardless when it was originated. Goodwill is now carried as an asset without reduction for periodic amortization; b) companies are to assess goodwill for impairment at least annually. If goodwill is impaired, its carrying amount is reduced and an impairment loss is recognized. It concludes with a discussion of how value is extracted from human capital, focusing on its elusive magnetic creativity and productivity. In an era when firms are increasingly accountable to shareholders and success is judged solely by stock prices, knowing how to measure and extract the value of a firm's intellectual assets has become one of the most critical and essential skills needed by CEOs today. Reflecting the most innovative thinking from some of the most sophisticated firms in the world, Sullivan's value driven intellectual capital is a manifesto [6], a clarion call to excellence for any corporate or financial executive, merger and acquisition partner or investor who understands how much future corporate survival and success depends on a simple enduring genius of a good idea and the need to convert those ideas into corporate value.

Mark Smith stated, measuring knowledge capital has a plethora of methods [4]. There is growing criticism that the traditional balance sheet does not take account of those intangible factors that largely determine a company's value and its growth prospects. The "unreported" assets are on average 10-15 times those of the tangible ones. Furthermore, several studies show that future growth is determined not by historical financial accounts but by factors such as management skills, innovation capability, brands and the collective know-how of the workforce. Consequently, more organizations are starting to address measurement and management of intangible assets such as knowledge. Those who do so mention several benefits:

- It more truly reflects the actual worth of a company;
- The process of measurement gives insights into the drivers of sustainable performance;
- Demands are growing for effective governance of intangibles, of which social and environmental reports are already evident;
- "What gets measured, gets managed" – it therefore focuses on protecting and growing those assets that reflect value;
- It supports a corporate goal of enhancing shareholder value;
- It provides more useful information to current and potential investors [10].

A large research found over 50 different innovative measurement methods, which we have grouped into 4 main approaches under the acronym ABBA. These 4 approaches for measuring intangibles, not mutually exclusive, are:

1. Asset – valuing knowledge as an asset, potentially tradable;
2. Benefits – focusing on the benefits of a KM programmed;
3. Baseline – assessing knowledge management effectiveness as a basis for year-on-year comparison;
4. Action – focusing on performance measurement.

Larissa T. Moss and Shaku Atre provided critics of such measures and argued that they are static measures and do not help managers to identify the underlying cause-effect [3]. The last few years have seen a development of new kinds of scorecard that are more helpful in understanding intellectual capital. The ones we have identified as significant are:

1. The Skandia Navigator (a kind of balanced scorecard) and its underlying value creation model. Edvinsson and Malone reported 90 measures in 5 groups developed by insurance company Skandia:

- Financial (20): income per employee, market value per employee etc.
- Customer (22): number of customer visits, satisfied customer index, lost customers.
- Process (16): administrative error rate, IT expenses per employee.
- Renewal and Development (19): training per employee, R&D expense/administrative expense, satisfied employee index.
- Human (13): leadership index, employee turnover, IT literacy.

This is a part of the balanced scorecard that adds non-financial measures alongside financial measures as a tool for managers to measure overall performance. Our research shows that another balance is also important. This is the balance between indicators that represent inputs, processes and outputs – a feature not explicit in methods like Skandia Navigator.

2. Karl Erik Sveiby's Intangible Assets Monitor – this divides intangible assets into external structure, internal structure and competence of people [8].

3. The IC Index of Intellectual Capital Services (ICS) – this combines value drivers in a distinction tree (hierarchy). ICS has achieved recognized leadership in intellectual capital as evidenced by a dominant position in academic publications and numerous independent references for best practice.

4. IC Rating of Intellectual Capital Sweden – also a hierarchy but adding a risk factor.

5. The Danish template developed in a 3-year in-depth project by the Danish Ministry of Industry.

6. The VAIC (value added intellectual coefficient) method from the Intellectual Capital Research Centre in Zagreb, Croatia [13; 14].

Each of these methods, e.g., ICM Gathering, has some interesting characteristics, but unlike raw balanced scorecards, they variously help managers to focus not just on the components of value, but on trends, momentum, underlying factors, interactions and sensitivity to risk.

2. Intellectual Capital Management Gathering – concepts and intellectual property. Intellectual Capital Management (ICM) Gathering is a very creative group of knowledge-based international corporations, which meet regularly to share insights and develop best practices on how to obtain value from managing intellectual property. Intellectual Capital Management links scientific and technology R&D, innovation and intellectual property rights in a holistic management concept. The findings of the ICM Gathering have formed the basis of a number of reference works by the authors, including:

- Technology Licensing – Corporate Strategies for Maximizing Value;
- Profiting from Intellectual Capital;
- Value-Driven Intellectual Capital;
- Einstein in the Boardroom;
- Edison in the Boardroom.

It is now generally accepted in the business community that intellectual property (IP) is a set of business assets as well as legal ones. Business assets have no signifi-

cant value by themselves [12]. This is a fundamental property of intangibles, such as IP. They become valuable only in a context of a business. That is to say, when their roles in supporting the corporate business strategy are made explicit, and/or when they are processed through organization of other business assets (manufacturing or distribution) to produce a protected product or a service that is attractive to customers. In order to be able to manage IP effectively as business assets, it is necessary to understand what a patent, or a trademark, or a registered design, actually does for business. In their book, "Edison in the Boardroom: How Leading Companies Realize Value from Their Intellectual Assets", Davis and Harrison identified 5 levels of sophistication in the way that companies approach the management of their IP [2]. This hierarchy is a useful way to think about a company's expectations. Beginning with the bottom of the pyramid and going up:

1. Defensive level. Companies at this level use their IP for defensive purposes only. Their goals are to protect their own innovations, to ensure they don't infringe the IP of others, and to obtain more IP. The costs of enforcement and other legal expenses can be high.

2. Cost control level. Companies at this level still have a defensive approach, but now focus on finding ways to obtain protection while simultaneously minimizing the costs of creating and maintaining their IP.

3. Profit center level. Companies reach this level once they begin to license their IP, or otherwise use it in support of their company business activity.

4. Integrated level. Here a company's business units grasp the power of using IP for a range of business roles. IP use for business becomes integrated across all the company's business activity.

5. Visionary. At this level of IP management companies take a long-term view of their role in business and in an industry. They seek to use their IP to create more strategic value.

Future directions for ICM begin with exploring value creation topics in an indepth manner, develop a "hypothetical or ideal" company that would address issues of ICM in a common language and without a company or industry bias, explore the role/requirements for a Chief Knowledge Officer and other personnel working on ICM issues. Future directions may includes: knowledge sharing and culture; learning center and learning; transition plans and future. ICM Model of Intellectual Capital consists of 3 elements:

1. Human Capital.
2. Intellectual Assets.
3. Intellectual Property.

Creating innovative intellectual assets from human capital includes:

- Value Creation;
- Value Extraction;
- Human Capital.

Goodwill offer relates to intangible assets, such as brand name recognition, loyal clientele and established relationships with vendors or of supplying business inputs for producing a company's goods or services. Goodwill may be difficult to calculate due to its intangible nature. Companies may be able to determine the value of goodwill by reviewing competing businesses in the industry to determine the importance of a

strong brand name or good customer relations. Valuing the impairment charge from goodwill can be difficult due to the subjective valuation process for intangible assets. Companies may use professional accounting services from a public accounting firm or certified public accountants (CPA) to help them determine the goodwill impairment of their company. Experts (e. g., L. T. Wilson and M. Koskiniemi) stated that an organization is solely focused on work activities that are related to managing intellectual assets: focus; find; elicit; capture; organize; optimize; publish; apply; evaluate; adapt [9].

ICM model of intellectual capital has multiaspect interaction and co-dependence [13]. The business model which supports the optimal development of human capital and intellectual assets is partnering. The characteristics of intellectual assets:

1. Partnering.
2. Business Solutions.
3. Human Capital.
4. Product Solutions.
5. Knowledge Capital (e.g., spillover effect).

Economists use the term "spillover" to capture the idea that some of economic benefits of R&D activities accrue to economic agents other than the party that undertakes a research. Purchasers of better or cheaper products, competing firms that imitate a successful innovation, and firms whose own research benefits from observation of successes and failures of others' research efforts all get such spillover benefits. As these examples suggest, spillovers are created by a combination of new knowledge resulting from an R&D effort, and commercialization of a new technology in terms of a product or process that is successfully implemented at a marketplace. Thus, a complete understanding of R&D spillover phenomena requires an unusual combination of scientific/technical and business/economic analysis. Market spillovers result when the operations at a market for a new product or process cause some benefits thereby creating flow to market participants other than the innovating firm. It is this "leakage" of benefits through operation of market forces, rather than the flow of knowledge itself, that distinguishes market spillovers from knowledge spillovers. Any time a firm creates a new product, or reduces the costs of producing an existing product, the natural operation of market forces will tend to cause some of the benefits thereby created to be passed on to buyers. Factors making knowledge spillovers larger or more likely include:

- "multi-use technology" (e.g., aeropolis);
- "proof of concept" that would point the way for other researchers to try related ideas in other applications;
- key component that will facilitate redesign and improvement of multiple distinct systems using that component;
- "path breaking" technology: success will open an entirely new line of technological development with apparently significant economic benefits;
- subsequent technical developments require expertise in application technologies in which proponents do not have relevant expertise (applies to both "multi-use" and "path-breaking" technologies;
- useful knowledge would be gained even if a project fails to achieve its technical objectives.

Network spillovers result when commercial or economic value of a new technology is strongly dependent on the development of a set of related technologies. An example of network spillovers is among different developers of software to be used with a new operating system platform. If one firm develops a particular application, people will buy it only if many other firms develop other sufficient applications so that a platform itself is attractive and widely used.

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