

## Intellectual Capital in the World of Information Economies

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**Abstract:** Intellectual capital is best described as information and knowledge within a company. Information is static; whereas, knowledge is dynamic. Knowledge is a companies' most important raw material. It is the most important source of added value as well as the most important output. If knowledge is not being managed properly, neither is the business. Intellectual capital is not just a matter for law, but should enhance corporate net worth. It should be the focus of strategic thinking and competitive advantage.

### I. What is Intellectual Capital?

Intellectual capital has been defined by Thomas Stewart as: "The sum of everything that everybody in a company knows that gives it a competitive edge . . . the intellectual material . . . that can be put to use to create wealth."<sup>1</sup> Intellectual capital could, thus, be described as information and knowledge within a company. Information is static; whereas, knowledge is dynamic. "Knowledge is information in action, information understood and put to use."<sup>2</sup> Knowledge is a companies' most important raw material. It is the most important source of added value as well as the most important output. If knowledge is not being managed properly, neither is the business. In 2000 alone, intellectual capital accounted for over 1/10th of the US GDP, or \$1 trillion.<sup>3</sup> The law and economic theory describe companies as bundles of assets. On the other hand, information age fact states that it is really a beehive of ideas.<sup>4</sup>

### 2. What exactly is Intellectual Capital and how do I put it to work?

The law does not protect knowledge or information in and of itself. Traditional intellectual property never intended to safeguard general know-how or expertise because it was never considered able to be susceptible to appropriation by individuals or commercialisation. Knowledgeable people merely became the leaders in their fields and were paid accordingly. There was no recognition of a companies' or individual's proprietary interest in the knowledge or information. Information still does not garner recognition as a form of property; although, certain classes of information have started to attract some protection.<sup>5</sup> Thus, intellectual property needs to be turned into intellectual capital by creating value in it. The following discussion reviews the different types of intellectual capital typically found in a company and how to leverage its value.

#### A. The Brand and Goodwill

The rationale for trade mark law lies in the economics of information. "The value of the modern trade mark lies in its selling power. . . this selling power depends for its psychological hold upon the public, not merely upon the merit of the goods upon which it is used, but equally upon its own uniqueness and singularity; . . . such uniqueness or singularity is vitiated or impaired by its use upon either related or non-related goods; and the degree of its protection depends in turn upon the extent to which, through the efforts or ingenuity of its owner, it is actually unique and different from other marks."<sup>6</sup> The concept that the selling power of trade marks themselves should be entitled to protection was radical for its time because traditional trade mark jurisprudence was designed to protect the mark's specific goodwill with respect to a good or service, not because it had an inherent independent value.

Companies today face the decision of whether to invest in innovation or in goodwill. The goodwill of a company rests in the signs that the consumer associates with it. Only distinctive signs can be registered, and the monopoly is only for a certain class of goods. A working definition of goodwill was recited in The

<sup>1</sup> Thomas Stewart, *Intellectual Capital: The New Wealth of Organizations* (New York: Doubleday, 1997)

<sup>2</sup> William van Caenegem, *Intellectual Property and Intellectual Capital*, Bond Univ. Law Papers 10 (2002)

<sup>3</sup> Lesley Craig and Lindsay Moore, *Intangible Assets, Intellectual Capital or Property? It does make a difference*, *Front Range Tech Biz*, 3 Feb. 2002 at [http://www.klminc.com/articles/frt\\_feb02.html](http://www.klminc.com/articles/frt_feb02.html)

<sup>4</sup> Thomas Stewart, *The Wealth of Knowledge: Intellectual Capital and the Twenty-first Century Organization* (New York: Doubleday, 2001)

<sup>5</sup> See for example, *Ladbroke (Football) v William Hill* [1964] 1 All ER 465, HL

<sup>6</sup> Frank I. Schechter, *The Rational Basis of Trademark Protection*. 40 Harv. L. Rev. 813 (1927)

Commissioners of Inland Revenue v Muller & Co.'s Margarine Ltd.: “What is goodwill? It is a thing very easy to describe, very difficult to define. It is the benefit and advantage of the good name, reputation, and connection of a business. It is the attractive force which begins in custom. It is the one thing which distinguishes an old-established business from a new business at its first start. The goodwill of a business must emanate from a particular centre or source. However it has power of attraction sufficient to bring customers home to the source from which it emanates.”<sup>7</sup>

Goodwill can be acquired in goods that have not been formally registered as trade marks. For example, in 1994 after obtaining a search report, fashion designer Tommy Hilfiger adopted the name and symbol “Star Class” for a new line of menswear. However, the International Star Class Yacht Racing Association had already registered the name for its Star Class boats, and was using the name and symbol for hats, clothing, flags, decals, pins, and jewellery. The court ordered Tommy Hilfiger to stop using the marks but did not award damages because there was no bad faith.<sup>8</sup> On the other hand, it is also possible to have a reputation and not have goodwill. The classic example of this is the Budweiser case. The Budweiser name for beer was well known in the United Kingdom but, in the absence of a trading presence here, the plaintiff could not establish the necessary goodwill to sustain the action in passing off.<sup>9</sup> Another problem with poorly managed trade marks is that they can become the victim of their own success. They lose their distinctiveness and may be revoked as a registered trade mark for becoming generic.<sup>10</sup>

Branding and leveraging of goodwill can be very profitable. Goodwill does not always pertain to the product alone. It often spreads to the company as well. This, in turn, reduces transaction costs and increases the value of all products in the firm. So, trade marks actually have the potential to increase in value with the passage of time. Goodwill protection is also less susceptible to being undermined by new technologies as its protection never runs out. A good example of this is the character merchandising of Mickey Mouse. The copyright runs out 70 years after the death of the author, Walt Disney. However, the trades mark of Mickey Mouse lives on forever.

Another way to enhance goodwill is to develop an “umbrella” of related products. For example, Crest toothpaste is not merely a brand of fluoride toothpaste. “Crest identifies and differentiates the source of the promise that you will die with all of your own natural teeth. And if there is a new and improved way of delivering that promise, it should come from Crest. If Crest is just a brand of toothpaste, then we could not have Crest mouthwash. If Crest is the promise of healthy teeth, we can have Crest mouthwash and a Crest toothbrush.”<sup>11</sup> The dilution doctrine developed in Rolls-Royce,<sup>12</sup> Dunhill<sup>13</sup> and Tiffany<sup>14</sup> cases has converted brands from being source identifiers for a single product into being a platform for a linked array of goods and services.

## B. Active Intelligence & Work Product

The active intelligence of a company comes from its energy and creativity which includes its knowledge, know-how, trade secrets, information, data, and the ability to innovate and take products and services to the marketplace.<sup>15</sup> Work product can be defined as the intellectual materials which are the new capital to create new wealth.<sup>16</sup> Today, technical progress does not rely on the learning by doing approach to gradual improvement, but instead by interpreting and exchanging complex scientific knowledge which, in turn, is developed into practical applications. No single company, in isolation, actually controls all of the knowledge resources that it needs. Companies need to access each other’s proprietary knowledge and the proprietary knowledge of publicly funded institutions, like universities.

Companies need to become more interdependent; and by doing so, they will need strategies which grant access to and use of other companies’ intellectual property resources. Because information and knowledge is constantly evolving at a rapid rate, companies need to build networks of interdependency in order to have continuous access to any of the latest developments.

<sup>7</sup> [1901] AC 217

<sup>8</sup> Paul Goldstein, *Intellectual Property: The Tough New Realities that Could Make or Break your Business*, (New York: Penguin, 2007)

<sup>9</sup> *Anheuser Busch Inc. v Budejovicky Budvar* [1984] FSR 413

<sup>10</sup> Trade Mark Act 1994 s 46(1). Examples include: Thermos, Escalator, Trampoline, Raisin Bran, Linoleum, Yo-Yo, and Shredded Wheat.

<sup>11</sup> Goldstein, *supra*.

<sup>12</sup> *Wall v Rolls-Royce of America*, 4 F.2d 333 (3<sup>rd</sup> Cir. 1925)

<sup>13</sup> *Alfred Dunhill of London v Dunhill Shirt Shop*, 3 F.Supp. 487 (S.D. N.Y. 1929)

<sup>14</sup> *Tiffany & Co v Tiffany Productions.*, 264 N.Y. Sup. Ct. 459 (1932), *afm’d* 188 N.E. Rep. 30 (NY, 1933)

<sup>15</sup> Craig & Moore, *supra*.

<sup>16</sup> *Ibid*.

Thomas Stewart has a four step process for managing this process:

1. “Identify and evaluate the role of knowledge in your business – as input, process, and output. How knowledge-intensive is the business? Who gets paid for what knowledge? Who pays? How much? Does whoever owns the knowledge also create the most value?”
2. Match the revenues you’ve just found with the knowledge assets that produce them. What are the expertise, capabilities, brands, intellectual properties, processes, and other intellectual capital that create value for you? What is the mixture of human-capital, structural-capital, and customer-capital assets?
3. Develop strategy for investing in and exploiting your intellectual assets. What are your value proposition, source control, and profit model? What strategies exist to increase the knowledge intensity of your business? In what ways can you increase your ability to leverage your intellectual assets? Can you improve results by restructuring intellectual assets?
4. Improve the efficiency of knowledge work and workers. Bearing in mind that knowledge work does not necessarily follow the linear path that physical labour often does, how can you increase knowledge workers’ productivity?”<sup>17</sup>

Care must be taken though when dealing with trade secrets. The term ‘trade secret’ is often used in relation to confidential information associated with industrial and commercial activity. The classification of some forms of confidential information as trade secrets is important because the protection afforded by the law may depend on it. Unfortunately, there is no satisfactory legal definition of the term in the United Kingdom. In *Herbert Morris Ltd v Saxelby*, Lord Atkinson spoke of ‘trade secrets, such as prices, &c. or any secret process or things of a nature which the man [the defendant] was not entitled to reveal.’<sup>18</sup> Lord Parker, in the same case, suggests a test based on the detailed nature of the information. Information that was far too detailed to be carried away in the head was a trade secret, whereas a general method or scheme that could easily be remembered could not be regarded as a trade secret.<sup>19</sup>

This was further extended in *Faccenda Chicken Ltd v Fowler*.<sup>20</sup> Goulding J defined three classes of information, being:

- information which, because of its trivial character or its easy accessibility from public sources, cannot be regarded as confidential;
- information which an employee must treat as confidential, but which, once learned, reasonably remains in the employee’s head and becomes part of his skill and experience; and
- specific trade secrets so confidential that a continuing duty of confidence applies even beyond the termination of employment or the service contract.<sup>21</sup>
- In the United States, the Uniform Trade Secrets Act defines a trade secret as: “[I]nformation, including a formula, pattern, compilation, program, device, method, technique, or process, that:
- derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and
- is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.”<sup>22</sup>
- This definition indicates that there are 3 essential components of a trade secret: subject matter, economic value, and security measures.

The Economic Espionage Act of 1996 makes the theft of trade secrets a federal crime. The Act prohibits the theft of a trade secret by a person intending or knowing that the offence will injure a trade secret owner. The Act also makes it a federal crime to receive, buy or possess trade secret information knowing it to have been stolen. The Act’s definition is similar to that of the Uniform Trade Secrets Act. The penalties for a violation of this new statute include a potential prison term of 15 years and fines up to \$5 million, depending on whether the defendant is an individual or a corporation.<sup>23</sup>

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<sup>17</sup> Stewart, *supra*. at note 4

<sup>18</sup> [1916] 1 AC 688 at 705

<sup>19</sup> *Ibid* at 707

<sup>20</sup> [1985] 1 All ER 724

<sup>21</sup> *Ibid*

<sup>22</sup> Uniform Trade Secrets Act

<sup>23</sup> Economic Espionage Act of 1996

### C. Intellectual Property (Patents)

A patent's main value in a networked knowledge base lies in its utility as a transactional tool. Between 1990 – 1999, IBM leveraged its patent portfolio through licensing activities, increasing its annual royalty income by 3,300% (from \$30m to \$1b). This income is free from manufacturing expense and significant operating expense. Basically, it went straight to the bottom line. For IBM to have been able to match that level of profitability, it would have needed to have sold an additional \$20 billion worth of its manufactured products per year. In other words, it would have had to grown its worldwide business by 25%.<sup>24</sup>

Another way to increase a patent's value is to map it then build patent walls around the most successful products, services and methods in order to prevent encroachment by competitors and retain competitive advantage. This technique is known as clustering. For example, The first manufacturer of aspirin could have a sought a patent on the 'process' by which it combined the product's chemical components; on the 'machine' designed to produce the aspirin tablets; on the tin container – 'manufacture' – in which it sold the aspirin; on the aspirin itself as a 'composition of matter'; and on its subsequent addition of a buffering agent to the aspirin as an 'improvement'.

Or a company may wish to obtain patents around a dangerous competitor's holdings to prevent its further market access ("bracketing"). However, cross-licensing may be a better way to go. A company will be more successful if it focuses on bargaining with instead of barring its competitors. Knowledge bartering to improve knowledge inventories has more advantages than investing in litigation against imitators. Most innovators imitate in some manner. The development of improvements on a patented technology owned by a third party may give way to an improvement patent which leaves open the need for cross-licensing. Cross-licensing is also a good way to obtain income from under-utilized holdings, and to gain needed intellectual property in return, a win-win situation which must be carefully managed in order not to be seen as anti-competitive.

Article 85 of the Treaty of Rome prohibits anti-competitive agreements which have as their objective or effect the distortion of competition within the Common Market. The Technology Transfer Regulation allows block exemption in respect of licensing of patents and/or know-how under certain circumstances, but this does not apply to pooled patents, joint venture patent agreements, and cross-licensing, that is reciprocal patent licenses.<sup>25</sup> These sort of horizontal agreements are allowed because they reflect mutuality of restrictions. The Commission offers some instructions regarding these in its application response to Re Alcatel Espace and ANT Nachrichtentechnik:

1. "the planned co-operation would lead to improved technical solutions which would be discovered more rapidly and would contribute to technical progress which would benefit customers;
2. the agreement only imposed restrictions necessary to the above objective. The fact that the agreement did not prohibit either party from engaging in other activities outside the scope of the agreement was an important factor;
3. the nature of the market implied that separate marketing was not practicable; and
4. the parties' market share was not high."<sup>26</sup>

### D. Corporate Culture, Corporate Memory & People

Companies are made up of people. They provide the culture and the memory for the company. Institutional memory is a collection of facts, concepts, experiences and know-how held by a group of people. As it transcends the individual, it requires the ongoing transmission of these memories between members of this group. A company's corporate knowledge is held in the heads of its employees who, according to law, are free to move from company to company. Institutional knowledge is gained by organizations translating historical data into useful knowledge and wisdom. Memory depends upon the preservation of data and also the analytical skills necessary for its effective use within the organization. Companies need to learn how to externalize this knowledge in order to build more comprehensive knowledge inventories which can, in turn, be shared (and possibly copyrighted) throughout the company.

Most commercial knowledge management efforts have included building some form of corporate memory to capture expertise, speed learning, help the organization remember, record decision rationale, document achievements or learn from past failures. Corporate memory has been defined as the total body of data, information and knowledge required to deliver the strategic aims and objectives of an organization. A corporate memory is the combination of a repository - the space where objects and artifacts are stored, and the community -

<sup>24</sup> Craig & Moore, *supra*.

<sup>25</sup> Commission Regulation (EC) No. 240/96 on the application of Article 85(3) of the Treaty to certain categories of technology transfer agreements.

<sup>26</sup> [1991] 4 CMLR 208

the people that interact with those objects to learn, make decisions, understand context or find colleagues. Knowledge mapping is commonly used to cover functions such as a knowledge audit (discovering what knowledge exists at the start of a knowledge management project), a network survey (Mapping the relationships between communities involved in knowledge creation and sharing) and creating a map of the relationship of knowledge assets to core business process.<sup>27</sup>

### **3. Conclusion**

Intellectual capital is not just a matter for law, but should enhance corporate net worth. It should be the focus of strategic thinking and competitive advantage. Intellectual capital is a company's main asset in a knowledge economy which is increasingly characterized by technological interdependence. Companies are also made of human beings who set complex social and informational systems. These systems can adapt, grow and improve in the same way that individual humans do. Companies are not just a collection of parts but are a collection of connections of brain cells, nerves, and sinews. To understand this is to understand the power of knowledge and technology set free and made human. To realize that it is possible to improve not only a company's performance today, but its responsiveness, its repertoire of skills, and its capacity to deal with the future.<sup>28</sup>

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<sup>27</sup> Nakkiran N Sunassee and David A Sewry, "A Theoretical Framework for Knowledge Management Implementation". ACM International Conference Proceeding Series; Vol. 30. Proceedings of the 2002 annual research conference of the South African institute of computer scientists and information technologists on Enablement through technology, Port Elizabeth, South Africa, p. 235 – 245.

<sup>28</sup> Stewart, *supra*. at note 4