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**Protection of Trade Secrets
in the Field of Information Technology**

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Abstract: “Trade secret” can be a formula, compilation, program, method, technique, or process that derives independent economic value, actual or potential, from not being generally known to the public. While the economic value of a trade secret is usually difficult to determine, it can provide an important competitive advantage for the owner. In this article, we emphasize the importance of trade secrets for firms and the economy and the risks to trade secrets posed by computerization and by departing employees. Next, we present an outline of the legal framework for the protection of trade secrets and summarize a number of trade secret cases. Finally, we draw our conclusion.

Keywords: trade secret; information technology; confidentiality; non-competition clause

1. Introduction

“Trade secret” means, in general, valuable or potentially valuable information that the holder is attempting to keep secret through contracts of confidentiality with employees, contractors or partners and / or through physical security measures and / or (such as encryption, authentication, access control, confidential or “secret” marking of documents, etc.) so that the only way commercial secrecy can be disclosed (disclosed to third parties) is through a breach of contract or of security measures, in other words, by means of a criminal act.

According to WIPO⁴, the categories that can be considered as trade secrets include:

Compilations of data (for example, customer lists);

Drawings, architectural plans or maps;

Computer programs;

Algorithms and processes that are implemented in other programs;

Instructional methods;

Processes, techniques and know-how of production or repair;

Document tracking processes;

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⁴ See April (2002). Trade secrets are gold nuggets: Protect them. *WIPO Magazine*.

Formulas or ingredients for making products¹;

Plans or business strategies or marketing;

Financial information;

Employee Information;

Planning;

Manuals;

Information on research or development activities.

The area of trade secrets is an important component in the protection of investment in intellectual property. There is no accurate data on the value of trade secrets, yet economists estimate that they represent a significant and growing percentage of intellectual property (estimated at 5 trillion US \$) (Almeling, Snyder, Sapoznicow, McCollum, & Weader, 2010)

Researchers estimate that business secrets cover over 90% of new technologies, and that over 80% of licenses and technology transfer agreements involve trade secrets or constitute a hybrid understanding of patents and trade secrets. (Mazzone & Moore, 2008) Trade secrets can represent a significant percentage of a company's assets, in some cases being theft of \$ 1 billion trade secrets².

In the US there are hundreds of decisions in federal courts every year on trade secrets, and the number of these cases continues to grow³. Increasing digitization and the ability to access and disseminate quickly and globally by the Internet poses new threats to trade secrets.⁴

The field of information technology presents numerous cases of commercial infringement and it is an important subject in the field of research, particular attention being paid to the way in which disclosure of trade secrets can be prevented or limited in the case of employees leaving. According to a recent study, in over 85% of trade secret cases, a person who has undoubtedly obtained a trade secret was either an employee or a business partner (Almeling, Snyder, Sapoznicow, McCollum, & Weader, 2010).

2. The Legal Framework

Unlike patents or copyrights that require a high degree of novelty, trade secrets must present a “minimal” innovation; moreover, a trade secret may include elements that are in the public domain if trade secret itself constitutes a unique, effective and valuable integration of public domain elements. Patents and trade secrets are not incompatible, but complementary, the latter protecting the collateral know-how associated with patents.⁵

¹ For example, the Coca-Cola recipe, known only by two people whose names are kept secret (the only written recipe description is kept in a bank vault which can be opened only by a resolution of the Board of Directors) but also recipes for pizza, for example - see *Magistro v. J. Lou, Inc.*, 703 NW 2nd 887, 890-91 (2005).

² For example, the case where Biswamohan Pani was accused of having stolen \$ 1 billion in business secrets from Intel in November 2008 - see details at http://www.networkworld.com/news/2008/110608-intel-trade-secrets-theft-indictment.html?tsobh&story=ts_whsp and <http://spectrum.ieee.org/semiconductors/precessors/lessons-from-the-1-billion-intel-tradesecret-theft>.

³ See (Almeling, Snyder, Sapoznicow, McCollum, & Weader, 2010) A search for “trade secret” on Loislaw of authors for October 2010 showed 153 cases; for 2010 (by the end of October), 924 cases were reported, and for 2005, 695 cases were reported.

⁴ View discussions on this topic in (Cundiff, 2009; Beckerman-Rodau, 2002; Rowe, 2007).

⁵ See for more details: (Jorda, 2008).

In the US, trade secret laws are state-owned, with each state individually determining how to protect them. Within States, trade secrets originate in *common law*.¹ The most widely accepted and quoted definition of trade secrets can be found in *Restatement (First) of Torts*. Thus, a “trade secret” may consist of any formula, pattern, device or compilation of information that is used in commercial activities of a firm and which gives it the opportunity to gain an advantage over competitors who do not know it or do not use it.

Very important in the United States is the *Uniform Trade Secrets Act (UTSA)*, adopted by 46 states, District of Columbia and the U.S. Virgin Islands. According to UTSA, a “trade secret” is information, including a formula, pattern, compilation, program, device, method, technique, or process that:

Provides actual or potential economic value from being unaware of others and cannot be obtained by acceptable means from other entities that can obtain economic value from its disclosure or use,

It is subject to reasonable efforts to maintain its secrecy.

Another Essential Act in the Legal Protection of Trade secrets is the Economic Espionage Act (EEA). According to EEA, a “trade secret” means all forms and types of financial, business, scientific, technical, economic or engineering information, including forms, plans, compilations, devices, formulas, drawings, prototypes, methods, techniques, processes, procedures, programs, tangible or intangible, stored, compiled, stored physically, electronically, geographically or in writing or not, if:

The Holder has taken reasonable steps to keep secret the information and

The information allows us to obtain an independent, actual or potential economic value from the fact that it is not known or easily retrieved by legal means of public.

In Romania², trade secret is the information that, in its entirety or in the exact connection of its elements, is not generally known or is not readily accessible to those in the environment normally dealing with this type of information and which acquires commercial value through the fact that it is secret and the holder took reasonable steps, taking into account the circumstances, to be kept secret; the protection of commercial secrecy operates as long as the above conditions are met. It is considered contrary to honest commercial practices to use the trade secrets of a trader improperly through practices such as the unilateral non-performance of the contract or the use of unfair procedures, abuse of trust, incitement to the offense and acquisition of trade secrets by third parties who know that that acquisition involves such practices as may affect the position of competing traders on the market. Breach of this obligation entails civil, contraventional or criminal liability.

¹ See (Mazzone & Moore, 2008).

² See Law on Combating Unfair Competition no. 11/1991, supplemented and modified by G.O. no.12 / 2014 and Law no. 117/2015 regarding the approval of Government Ordinance no. 12/2014 for amending and completing the Law no. 11/1991 on combating unfair competition and other acts in the field of competition protection).

3. Case Studies

Hewlett-Packard Company v. Mark V. Hurd

Hewlett-Packard is one of the largest and most important companies in the field of information technology, providing leading products in the field of personal systems, printers and Enterprise Business.

Being dismissed by Hewlett-Packard on August 6, 2010 (Hurd received several million dollars after the contract was terminated and the parties reaffirmed the need to protect business secrets), Mark Hurd agreed to work for Oracle Corporation, a direct competitor of HP.

Mark Hurd had top positions at Hewlett-Packard (Chairman of the Board, Chief Executive Officer and President) and was responsible for creating company strategic plans and business plans against rival companies including Oracle, the firm who hired Hurd after being dismissed by Hewlett-Packard (Oracle is a corporation that Hewlett-Packard is collaborating with about 14,000 joint customers). To preserve the confidentiality of the information he had access to, Hurd was paid a few million dollars in cash, shares and options to buy shares.

In the civil complaint, Hewlett-Packard argued that Mark Hurd cannot work for Oracle without disclosing Hewlett-Packard's trade secrets and confidential information and that he violates legal and contractual obligations by accepting his position at Oracle.

Mark Hurd's confidentiality agreement concerned trade secrets, confidential and technical information and know-how unknown to the public, obtained or produced by him during the Hewlett-Packard contract. Confidential information referred to in the Agreement may include, without limitation, information about the organization, structure and finance of the company, employee performance, research, development, manufacture, marketing, certificates, keys, passwords and other IT information, as well as information which Hewlett-Packard receives from other parties with the obligation to keep them confidential. This information could be used by Mark Hurd only as a Hewlett-Packard employee, confidential and taking steps to ensure that such information is not disclosed to unauthorized persons or used in an unauthorized manner, both during and after the termination of the contract between parts.

Therefore, in the complaint, Mark Hurd was asked not to be left in a position where he could use trade secrets. The parties came to a deal after two weeks, when it was announced that Hurd would give up \$ 14 million in shares to work for Oracle.

International Business Machines Corporation v. Mark D. Papermaster¹

In 2008, Mark Papermaster, IBM's Blade Development Unit Vice-President, became the subject of a legal action to obtain trade secrets and breach of the non-compete clause (unfair competition clause) when he announced that he would work for Apple as Senior Vice President of Devices Hardware Engineering. IBM argued in the complaint that Papermaster had access to trade secrets and that there was a high risk that it would disclose them as an employee of Apple at the expense of IBM.

The United States District Court in the Southern District of New York granted the IBM motion for preliminary injunctive relief. Additionally, the judge in this case has decided that IBM has to pay a \$ 3 million bond for costs or damages that Papermaster might require while he was unable to work for Apple.

¹ See details at: <http://finance.yahoo.com/news/HP-Hurd-reach-settlement-over-apf-162022018.html?x=o>.

In January 2009, it was announced that the parties reached an agreement in which Papermaster will certify within a legal framework that he is protecting IBM's business secrets.

United States of America v. William P. Genovese, Jr.

In February 2004, portions of source code from Microsoft's Windows NT 4.0 and Windows 2000 operating systems were offered for sale on the Internet (via an FTP server). Microsoft alerted the FBI and in July 2004 an undercover agent contacted Genovese and bought source code.

In January 2005, William P. Genovese, Jr. was convicted of downloading and selling trade secrets, violating the provisions of 18 U.S.C. Section 1832 (a) (2).

In his defense, Genovese argued that the definition of “trade secret is very vague, even unconstitutional, applied to the facts of his case and that the Economic Espionage Act violates the First Amendment (even if it does not protect actions seeking to obtain economic benefits through exploitation a trade secret). Genovese also claimed that he could not have known that the code was not known to the public or that Microsoft had taken reasonable steps to protect it. In this case, the court argued that a trade secret does not lose its protection when it is temporarily, accidentally or unlawfully made public.¹

4. Conclusion

Trade secrets are an important component of economic and intellectual property, protecting them by encouraging innovation and ethical commercial practices. The value of trade secrets is difficult to estimate, depending on a number of factors, including their ability to maintain their economic value. However, it can be said without hesitation that trade secrets can represent a significant part of a company's assets.

The field of information technology offers a large number of cases where trade secrets have been disclosed or used without right.

The protection of trade secrets depends on the protection measures that the holders take and the existing legal framework.

Knowing the value of trade secrets and the increased ability to obtain and divulge them due to information technologies, we believe that a global, uniform approach to this issue is needed. We also believe that a clearer economic and doctrinal approach is needed on how confidentiality and non-compete contracts (unfair competition) can prevent the use or disclosure of trade secrets in the case where employees leave.

¹ It should be noted in this context that if the information posted on the Internet causes its entrance into the public domain, a person republishing that information is not guilty of obtaining a trade secret, even if he knew that information was obtained through illegal means (see, in this regard, the case of DVD Copy Control Inc. v. Bunner, 2004).

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