

Trade secrets

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Abstract:

Trade secrets occupy an important and prominent place among industrial property issues, as they have become one of the most important intangible assets of industrial and commercial companies. They provide these companies with a competitive advantage in both local and global markets due to the valuable information they contain. It is therefore necessary for the legislator to protect the owners of trade secrets from any infringement of this information, which they wish to keep confidential.

Although the Algerian legislator has introduced, repealed and replaced many provisions relating to industrial property rights as part of the adaptation of the Algerian legal system to protect intellectual property in line with its accession to the World Trade Organisation and the TRIPS Agreement, trade secrets have not been subject to comprehensive legal regulation.

In the absence of a comprehensive legal regime for the protection of trade secrets, as opposed to the patent system or other industrial property systems in Algerian legislation, we raise the following question How can trade secrets be protected under Algerian law? Are general rules sufficient to protect trade secrets or is specific regulation required?

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Introduction

The information and communication revolution that contemporary human society is experiencing has brought about radical changes in the social and economic conditions of both advanced and developing societies, albeit at a relatively slower pace in developing countries. Information has come to dominate all aspects of life, ushering in a new era known as the "Information Age". This era witnessed the birth of the greatest human invention, the "computer", which revolutionised the collection, storage, analysis, retrieval and dissemination of information in electronic form (Mahrez, 2013, p. 1).

Creative energy, knowledge innovation and information have been transformed into valuable economic assets, forming the basis of a new knowledge-based economy. Intellectual property, often referred to as 'intellectual assets', is now one of the most valuable intangible assets owned by companies and determines their competitive position. Those who possess them have a leading edge in national and international markets (Mahrez, 2013, p. 1).

Intellectual property can be divided into two types. The first type is known as literary and artistic property, which includes copyright and related rights. The second type is known as industrial property, which includes patents, industrial designs, trademarks, geographical indications, trade names, integrated circuit designs, trade secrets and undisclosed information, which is the subject of our study here.

Trade secrets (undisclosed information) occupy an important and prominent place in the field of intellectual property. They have become one of the most important intangible assets of industrial and commercial companies, providing them with a competitive advantage and commercial reputation vis-à-vis competing companies and projects.

Their importance is growing at the international level as they are seen as a fundamental element in technology transfer processes. Many technology producing companies prefer to keep their inventions secret and not disclose them, benefiting from the protection provided by laws and treaties that protect industrial property rights (Riad, 2013, pp. 363-364).

A system for the protection of undisclosed information has evolved within the framework of public law, and it has undergone a significant development with the conclusion of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). For the first time, undisclosed information was included in the scope of intellectual property rights. In accordance with this agreement, many countries have begun to enact legal provisions for this branch of law in their national legislation (Mahrez, 2013, p. 10).

Although the Algerian legislature has introduced and repealed many provisions related to industrial property rights in order to adapt its legal system for the protection of intellectual property to the requirements of its accession to the World Trade Organisation and the TRIPS Agreement, trade secrets have not been subject to comprehensive legal regulation (Mahrez, 2013, p. 10).

In the absence of a comprehensive legislative regulation for the protection of trade secrets, Algerian legislation juxtaposes them with the patent system or other industrial property systems. This led us to ask the following question How can trade secrets be protected under Algerian law? Are general rules sufficient to protect trade secrets, or are specific rules required?

To answer this question, we adopted a comparative analytical approach. We divided the plan into two sections, the first being an introduction to trade secrets and the second dealing with specific methods of protecting trade secrets.

First Axis: Introduction to Trade Secrets

The subject of intellectual property is particularly important because it touches on a sensitive and crucial issue: intellectual production, which is no less important than material production. The progress of any nation is now measured by its achievements in education and culture.

In view of the current global trends of scientific, creative and technological competition imposed by rapid technological progress, especially with the advent of digital technologies and the Internet, which have turned the world into a small village where information and knowledge can be easily exchanged between countries in a short period of time, intellectual property has

assumed a crucial role. The measures of progress are now linked to a country's ability to own and control technological secrets.

Therefore, we will try to understand the conceptual framework of trade secrets (first requirement), followed by the conditions that necessitate legal protection and the rights arising from them (second requirement).

First requirement: The Conceptual Framework of Trade Secrets

The increasing importance of innovation and invention has made competition in today's business environment based on knowledge, information and ideas. Commercial enterprises now rely on information to conduct their business and manage their projects. It has become evident that the extent to which companies can acquire such valuable information determines their competitive advantage in local and international markets. Therefore, it is necessary to protect the confidentiality of this information (Mahrez, 2013, p. 11).

In order to become familiar with the topic of trade secrets, we will try to define them (first subsection), describe their forms (second subsection) and distinguish them from the patent system (third subsection).

First Axis: Definition of Trade Secrets

Unlike the Algerian legislator, the Egyptian legislator regulated trade secrets under the name of "undisclosed information" according to Law No. 82 of 2002 for the Protection of Intellectual Property Rights. However, it did not provide a specific definition and only specified the conditions for protection, similar to the TRIPS Agreement, which refers to them as "confidential information" without providing a definition and only specifying the conditions for protection.

Referring to the Unified Trade Secrets Act of 1979 in US law, Article 4 of its first chapter defines trade secrets as "information, including formulas, patterns, compilations, programs, devices, methods, techniques or processes that

1. Derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by appropriate means by, other persons who can obtain economic value from its disclosure or use; and
2. Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy".

It is noteworthy that this definition adopts a broad concept of information and provides examples without limitation, allowing it to be applied to any evolving form of information. Moreover, according to US law, trade secrets are associated with chemical compositions, models, machines and various confidential commercial information such as customer lists (Mousseron, 1972, p. 22).

From a legal perspective, trade secrets are defined as a collection of new theoretical, practical and managerial technological knowledge that is kept confidential by companies and is not covered by patent rights (Al-Qilubi, 2003, p. 435). It is worth noting that this definition considers commercial knowledge as technological, theoretical, practical and managerial knowledge, which includes areas not originally considered as technical knowledge. Technical knowledge is merely

knowledge of a commercial and industrial nature. Furthermore, this definition overlooks the definition of trade secrets (Hawas, 2020, p. 74).

Trade secrets are also defined as "any information that can be used in business or other enterprise activities, has commercial value derived from its secrecy, and confers a competitive advantage in the market and economic privileges on the entity owning it". This definition considers information to be confidential only if its commercial value derives from its secrecy (Hawas, 2020, p. 74).

Trade secrets are further defined as secret or generally unknown information relating to a specific commodity or product, including innovations, compositions, components, elements, methods, techniques or industrial means. It includes a collection of technical knowledge, technology and trade secrets relating to goods or products that are retained by the manufacturer or factories and are not disclosed (Hajjaj, 2021, p. 557).

Trade secrets are also defined as any secret or generally unknown information that gives its owner an advantage over competitors, including production processes, programmes, technologies, specific methods, statistics, studies and other information that has economic value. The owner takes precautions to protect such information.

This definition is considered the most likely because it does not require the information to have a high degree of industrial or commercial skill, creativity or innovation. It is sufficient that the information has economic value in its intended use. Accordingly, according to this definition, such information is commercially used in a confidential manner, whether it is economic, industrial, commercial, administrative or technological, because of the actual or potential commercial advantage it provides to its owner by virtue of its secrecy, and the owner has taken the necessary measures to preserve it. (Daoud, 2016, p. 60).

Branch Two: Forms of Trade Secrets

Trade secrets can take several forms, which can be categorised as follows:

First: Technical know-how

This refers to the set of skills acquired by an employee during his or her time working on an industrial project. It may include the training of technical assistants in the planning and organisation of the factory, the construction of buildings and the positioning of equipment. Technical skills also include engineering services. These skills are usually closely associated with the workers and technicians, but can also be documented and represented in writing. These skills have an economic value and are therefore subject to protection (Al-Ibrahim, 2012, p. 25).

Second: Technological knowledge

Technological knowledge is a collection of information related to the practical application of scientific theories or inventions (Riad A. A., 2013, p. 369). It represents the practical and applied aspect of science and is known as the practical application of scientific research to achieve the best applications (Al-Kilani, 2008, p. 69). Some scholars define it as a collection of acquired practical knowledge with a secretive nature, which represents the time and effort spent to obtain

it. This knowledge can be transferred to others and has a technical impact in a specific industrial or organisational field (Dhikraa, 2007, p. 73).

Technological knowledge is considered one of the most important and valuable pieces of information that is usually not disclosed by its owners due to its technological or innovative nature, which is surrounded by secrecy and requires significant effort and financial resources to obtain. This form of technology transfer has become common in technology transfer agreements from developed countries to developing countries (Riad A. A.-G., 2013, p. 369).

Third: Industrial methods and processes

Industrial methods and processes, also known as manufacturing or production secrets, refer to the techniques and methods that companies and individuals use to manufacture a specific product during the experimental phase. These methods are precisely defined with the aim of obtaining a product with specific specifications. For example, the chemical formula used in the manufacture of a particular drug. These secrets are usually restricted to a single company and are not usually licensed to others (Riad A. A.-G., 2013, p. 370).

Fourth: Administrative, organisational and marketing methods and plans

For each project or company, an internal system or policy is established and implemented to organise the entity and manage its operations. These methods and techniques are protected as trade secrets if they provide a competitive advantage. Examples of these trade secrets include customer lists, customer preferences, profits and losses of the organisation, various administrative documents, products in high demand, technical information for employees, marketing and sales strategies, economic policies of the organisation, business methods, financial and administrative studies (Fikri, 2014, p. 171).

Third branch: Distinction between the trade secret system and the patent system

In certain cases, a distinction is made between the trade secret system and the patent system. Therefore, we will try to clarify the differences and overlaps between the two systems.

First: Differences between trade secrets and patents

A patent can be defined as an official document granted by the state which gives the inventor a temporary exclusive right to exploit the invention, subject to certain obligations (françon, 1999, p. 11). It is a licence or permit granted by law to the inventor, establishing his economic right to exploit his invention for a certain period and under certain conditions. Some define an invention as "the realisation of an original idea that has been physically implemented" (Salah, 2000, p. 32).

Patents, unlike trade secrets, are governed by legislation under Order 03-07 of 19 July 2003 on Patents.

The difference between patents and trade secrets lies in the fact that the protection afforded to trade secrets is automatic and not subject to any formal procedures, whereas obtaining a patent requires a series of formal procedures established by the legislator under Order 03-07 and its implementing Decree No. 05-275 of 2 August 2005, which establishes the procedures for filing

and granting patents. This is in addition to its modification and completion by Decree No. 08-344 of 26 October 2008.

On the other hand, obtaining a patent involves formal requirements in addition to the need to meet objective conditions. These conditions include the novelty of the invention, its inventive step and its industrial applicability. Trade secrets, on the other hand, require only that the protected information has an economic value due to its secrecy and that the owner has taken reasonable measures to maintain its secrecy.

Unlike the system of undisclosed information, the patent system does not protect ideas and information in and of themselves, regardless of their importance. Instead, it protects the practical application of those ideas and information. As a result, much technical knowledge that is excluded from most patent laws, either because it relates to human life, such as medical and pharmaceutical compositions, or because it is not industrially applicable, may be covered by the legal protection of undisclosed information (Riad A. A.-G., 2013, p. 376). Thus, the protection system established for trade secrets appears to have a broader scope than the patent system.

The two systems also differ in terms of the duration of protection. While a patent is protected for 20 years from the date of filing, trade secrets enjoy perpetual protection for an indefinite period of time as long as they remain undiscovered by others or are lawfully obtained and disclosed to the public.

In order to contribute to technological progress and industrial development, the applicant for a patent is obliged to disclose the secret of the invention by filing an application with the Algerian National Institute of Industrial Property so that experts in the field can implement it, in exchange for the inventor's exclusive right to exploit the invention during the period of protection.

This is in contrast to the holder of a trade secret, who is not obliged to disclose his information, as he has the right to keep it confidential and not to disclose it.

It is worth noting that the protection afforded by the law to the holder of undisclosed information does not confer an exclusive right to prevent others from using that information if they independently discover it or lawfully obtain and disclose its secrecy by lawful means and independent efforts.

This is in contrast to the patent system, where the patent holder is granted an exclusive right that prohibits others from exploiting the invention in any way (Riad A. A.-G., 2013, p. 377). It follows that the owner of trade secrets enjoys legal protection when those secrets are unlawfully attacked by others using unauthorised means and methods.

Second: Interaction between trade secrets and patents

Despite the existing differences between the trade secret system and patents, there is a close relationship between them and the party concerned can choose between the two systems as a basis for protection.

The inventor or owner of a trade secret prefers to choose the best methods and means to preserve his innovation, to compensate for the time and effort invested in it and to obtain the best

exploitation. A trade secret may consist of knowledge, techniques, methods or products that meet the requirements for patentability. However, the owner may choose to keep it as a trade secret within his company or license it to others for use (Al-Ibrahim, 2012, p. 31).

In practice, the inventor has the right to rely on the trade secret system to protect his invention as long as its secrecy is guaranteed. In other words, the inventor will only resort to patent protection if he fears that his secret will be discovered in a short period of time.

As for trade secrets, they can be divided into two categories. There are trade secrets that do not meet the eligibility criteria for patent protection, and these can only be protected under the trade secret system. Examples include customer lists or management and marketing techniques that do not have a sufficient level of inventiveness to qualify for patent protection. Then there are trade secrets that relate to inventions that meet the eligibility criteria for patent protection and can be protected under patent laws. In this case, companies have a choice between applying for a patent for that invention or keeping it as a trade secret (Riad A. A.-G., 2013, p. 379).

It is clear from the above that the trade secret system has a broader scope than the patent system. It provides inventors with an alternative system to patents and serves as a complement to patent protection. Protection under the trade secret system extends to technical knowledge that cannot be protected by patents due to lack of novelty, inventive step or industrial applicability (Al-Ibrahim, 2012, p. 32).

The second aspect: Conditions for the protection of trade secrets and the resulting rights

In order for trade secrets to enjoy legal protection, certain conditions set out in the TRIPS Agreement (Part I) must be met, resulting in rights for the owner of the trade secret (Part II).

Part I: General Conditions for the Protection of Trade Secrets

In order to qualify for protection, trade secrets must satisfy general objective conditions and specific objective conditions.

1. Confidentiality of information

Confidentiality is the most important condition for trade secrets and is the essence and basis of their protection. This is because information that is known to the public or to a group of individuals, including a large number of specialists in a particular trade or industry, does not fall within the category of trade secrets protected by the law (Al-Saghir, 2005, p. 28).

Confidentiality means not disclosing commercial, industrial or technical information to others from projects operating in the same productive field in a manner that suggests a lack of consideration for them as secrets. It aims to keep it hidden from competing projects (Al-Saghir, 2005, p. 13).

The required level of confidentiality of information is relative, not absolute. Technical information and knowledge do not lose their confidential nature simply because they are known to a limited number of people. Disclosure of trade secrets to a small and limited number of individuals (such as employees, consultants, experts and technicians) does not remove the secrecy

aspect of the information and knowledge, as long as those individuals are bound by confidentiality and undertake not to disclose it (Daoud, 2016, p. 62).

It is not necessary that the information is available to a single project if it is the sole owner of the information.

It is conceivable that several projects may simultaneously obtain the same information through research and development, but secrecy will remain as long as the information is not available to other projects operating in the relevant field of activity (Riad A. A.-G., 2013, p. 380).

However, the degree of secrecy must be sufficient to provide the holder of the information with an actual or potential economic advantage over its competitors. Secrecy is considered sufficient if it is difficult for others to obtain and use the confidential information without engaging in unfair practices (Riad A. A.-G., 2013, p. 380).

It is not necessary that the components and elements of the information are confidential. Its components and elements may be non-confidential, but it is considered confidential as a whole due to the efforts and costs invested in its collection and organisation (Al-Saghir, 2005, p. 24). This is confirmed by the TRIPS Agreement in Article 39(1)(a), which states that secrecy means "not generally known or readily accessible to persons within the circles that normally deal with the kind of information in question, except those who are under an obligation to keep it confidential".

The Egyptian legislator has also reaffirmed the same principle in Article 55(1) of the Egyptian Law on the Protection of Intellectual Property Rights, which states that trade secrets should be characterised by "confidentiality, which means that the information as a whole or in the precise composition of its elements is not known or generally circulated among those engaged in the relevant industrial art".

For example, the formula of Coca-Cola can be classified as undisclosed information because the method of assembling its various components and the precise chemical details of the final product are not known to those who are engaged in the same sector, namely beverage manufacturers (Bouguenja & hamo, 2020, p. 479).

Based on the above, it is not a requirement for the protection of trade secrets that their components and elements be confidential. It is sufficient that the confidentiality is limited to the combination of the components and elements constituting the information or to the precise composition and assembly of the components. The components of the information may be known to the public, but their compilation and arrangement requires considerable effort or financial expenditure (Hawas, 2020, p. 77).

2/ The commercial value of information lies in its secrecy, which means that confidential information has economic and commercial value for a project, whether in terms of increasing profits, minimising losses, attracting new customers or providing its owners with competitive advantages over other projects (Bouguenja & hamo, 2020, p. 479).

The commercial value of information derives from its secrecy. Therefore, this condition complements the requirement of secrecy. It is not necessary that the information generates

significant benefits or substantial profits; it is sufficient that it provides serious benefits to the project and a competitive advantage over other projects that do not know it. The value of information is not necessarily immediate; its protection may be justified if it is expected to generate future benefits, such as information that is still in the research and development phase (Riad A. A.-G., 2013, p. 382).

Several factors affect the commercial value of information, including the factor of secrecy. The more confidential the information, the higher its commercial value. For example, the secret recipe of the Coca-Cola company has been kept secret for over a century. Another factor is the cost of accessing and maintaining the secrecy of the information. The more money it costs to access or maintain its secrecy, the higher its commercial value. There is also the question of the legitimate means of obtaining the confidential information. If others discover such information by accident or experiment, this is not an infringement. However, if others can easily access it, it weakens their competitive position and reduces their commercial value (Ubaidat, 2003, p. 25).

The number of projects involved in the same business activity also plays a significant role in determining the commercial value of the information. The more competing companies are unaware of the secrecy of the information, the greater the value of the secret held by a company in relation to other companies and the stronger its competitive position.

3/ Take serious and reasonable measures to protect trade secrets

The owner of the secret must demonstrate his commitment to preventing the dissemination of confidential information and take the necessary measures to prevent its disclosure to others. Any negligence on their part in taking the necessary measures to maintain the confidentiality of their information constitutes a waiver of their right to seek the protection provided by law for such information. The assessment of whether the owner of the information has taken reasonable measures to maintain its secrecy is subject to the discretion of the judge, who may rely on the prevailing customs in the industrial and commercial field in which the dispute arises (Daoud, 2016, p. 63).

It should be noted that the measures to be taken by the holder of the secret depend on the nature and value of the confidential information, the type of activity carried out by the establishment, the size of the establishment and the risks associated with the disclosure of the secret. These measures are not exhaustive as they may include security measures such as erecting barriers and restricting the presence of information by allowing access only to a limited number of employees or those in senior positions, using secret and encrypted codes, computer programs that prevent copying, placing special warnings or permanent surveillance, prohibiting photography, stamping documents as confidential, and proper disposal of documents and papers containing confidential information (Al-Saghir, 2005, p. 30).

Contractual measures can also be implemented by means of contracts with workers and employees, requiring them not to disclose the secrets during or after their employment.

Similarly, when licensing others to use trade secrets, the licensor (the owner of the secret) may include a clause in the contract requiring the licensee to maintain the confidentiality of the secret.

Second: Specific objective conditions for trade secrets

In addition to the general objective conditions, the TRIPS Agreement requires the existence of specific objective conditions, mainly related to pharmaceutical or agrochemical products. The confidential data relating to these products are protected under the trade secret regime when they are submitted to government authorities in order to obtain a licence or marketing approval for these products.

Based on the provisions of Article 39 of the TRIPS Agreement and Article 56 of the Egyptian Law for the Protection of Intellectual Property Rights, the confidential data submitted to government authorities must meet the following conditions

1. The submission of data to government authorities must be necessary to obtain the required licence. Government agencies require pharmaceutical companies to submit all test data relating to the results of experiments conducted on their drugs to ensure their safety and efficacy before granting licences to sell their drugs. Pharmaceutical companies usually obtain this data through time-consuming and costly experiments (Muhammadin, 2004, p. 92). For this reason, the TRIPS Agreement requires member countries to include provisions in their legislation to prevent anyone from illegally obtaining such data for fear that it will be disclosed to other competing companies.

The data must be necessary to obtain a marketing authorisation for pharmaceuticals and agrochemicals. The protection does not cover data submitted for other purposes or to obtain a licence to market other products, such as food.

The competent authorities receiving this information are required to protect it from disclosure and unfair commercial use from the date of its submission until it loses its confidentiality or for a maximum of five years or two shorter periods.

Disclosure of such information by the competent authorities for the purposes of public protection shall not constitute an infringement of the rights of the holder of the information.

2. Pharmaceutical and chemical products containing new entities. This protection applies only to chemical entities and therefore non-chemical entities such as biological entities are not eligible for protection. Article 39 of the TRIPS Agreement states that pharmaceutical and chemical products must contain new entities, i.e. they must not have been previously submitted to the competent authority for marketing authorisation.

3. Substantial efforts to obtain such information. The data provided to the authorities must be the result of significant or substantial efforts and serious attempts to obtain them. It is undeniable that these tests are carried out in order to create a new chemical entity, especially in the field of pharmaceuticals, and therefore require significant efforts and resources.

Second branch: Rights of the owner of a trade secret

Fulfilment of the objective conditions for trade secrets gives rise to a number of rights for their owners, which we will present in turn below.

First: The trade secret owner's right of retention and non-disclosure

The owner of a trade secret has the right to keep it within his company and not to disclose it except to the parties he wishes to inform, even if it is an administrative body. Any project can protect its information that it considers confidential from unfair competition or disclosure (Riad A. A.-G., 2013, p. 383).

Therefore, the owner of a trade secret has the right to disclose or not to disclose his confidential information, which results in his right to prevent others from disclosing or using such information without his consent in a manner contrary to fair competition. This has been affirmed by Article 39/2 of the TRIPS Agreement and adopted by the Egyptian legislator under Article 57/5 of the Egyptian Law for the Protection of Intellectual Property Rights.

Thus, the owner of confidential information enjoys this right as long as his information remains confidential and has not been lawfully obtained by others. It falls within the scope of legitimate business or fair trade competition (Article 59 of the Egyptian Law for the Protection of Intellectual Property Rights. n.d.). It includes:

1. Obtaining information from publicly available sources such as libraries, including patent libraries, open government records, research, published studies and reports.
2. Obtaining information as a result of self-initiated and independent efforts aimed at extracting information through examination, testing and analysis of marketable goods that embody undisclosed information.
3. Obtaining information as a result of research, innovation, invention, development, modification and improvement efforts made by independent diligent persons other than the owner of the undisclosed information.
4. Possessing and using known and available information that is in circulation among the practitioners of the industrial art to which the information belongs.

Obtaining confidential information without committing acts of unfair competition does not constitute an infringement of a trade secret, since the owner of a trade secret does not have a proprietary right to it. It is permissible for others to use such information as long as they obtain it through legitimate means and independent self-initiated efforts, unlike the rights conferred by patents.

Second: The owner's right to use or transfer the trade secret

The owner of a trade secret has the right to use and exploit it within his business. They also have the right to transfer it, whether for a consideration or free of charge.

Section Two: Procedure for the Protection of Trade Secrets

If the objective requirements for a trade secret are met, the owner of a trade secret is entitled to protection against infringement or unlawful disclosure.

In general, the infringement of undisclosed information can take two forms. The first form is the disclosure of undisclosed information to unauthorised persons by persons authorised to have access to it. The second form involves the unauthorised acquisition and use of the undisclosed

information by third parties without the permission of the owner and in an illegitimate manner (Riad A. A.-G., 2013, p. 385).

Like other forms of industrial property, trade secrets enjoy civil protection (first section) and criminal protection (second section), which we will present sequentially below.

First Section: Civil protection of trade secrets

The civil protection of trade secrets can be divided into contractual protection (First Branch) and non-contractual protection (Second Branch).

Area 1: Contractual protection of trade secrets

The contract is considered to be an important and effective means of protecting trade secrets by including explicit provisions and conditions obliging the parties to maintain confidentiality. Contractual protection is manifested within the framework of the employment contract (firstly) or within the framework of technology transfer agreements in the case of licensing (secondly).

First: Employment contract

Contractual protection of trade secrets arises from the employment contract between the employee and the employing company, which contains two conditions: firstly, the contract must contain an explicit clause on the employee's obligation not to disclose the trade secret and, secondly, a non-competition clause. This obligation obliges the employee not to use trade secrets in any other competing project and may extend to prohibiting the employee from entering into any employment relationship with a competing company or project, even after the termination of the contract with the company that owns the trade secrets (Dhikraa, 2007, p. 128).

The obligation of confidentiality in the context of employment contracts is stipulated by Algerian legislation in Article 07/8 of Law 90-11 of 25 April 1990 on employment relations, as follows "Employees, within the framework of employment relationships, are subject to the following basic obligations: ... not to divulge professional information relating to technologies, technology transfer, production methods, organisational methods and, in general, not to reveal the contents of internal documents belonging to the employing entity, except when required by law or requested by the competent authorities".

Second: technology transfer agreements

The concept of technology transfer agreements refers to the contractual relationship between the holder of the technology, which includes confidential information and knowledge, and another person who seeks to obtain it, namely the licensee.

This is done on the basis of pre-agreed terms by which the licensee obtains the right to use the technology for a specified period of time in exchange for financial compensation. These agreements are characterised by confidentiality because the interests of the licensee require that this technology remain confidential and its disclosure could cause significant irreparable harm, resulting in a reduction in the economic and financial value of these secrets.

Therefore, the licensor seeks to include provisions in the contract requiring the licensee to take measures to ensure the confidentiality of the technology (Sari Al-Din, 2001, p. 39).

The licensee or recipient of the technology undertakes to maintain the secrecy of the confidential information in two stages. At the negotiation stage, which is a sensitive and critical stage because of the vulnerability of the confidential information, the licensor seeks to provide sufficient protection to ensure that the recipient will honour its commitment to maintain the confidentiality of the information and knowledge that it receives. One of the most important guarantees at this stage is the written commitment and financial guarantee.

As for the second stage, which is the implementation stage of the contract, the protection of confidentiality is achieved through conditions set out in the contract between the licensor and the licensee, where the latter is obliged to maintain the confidentiality of the information and to prevent its leakage to competing projects. The licensee's obligation to maintain the confidentiality of the information extends to its employees who are in a subordinate relationship, whether they are employees or consultants (Daoud, 2016, p. 68).

Branch 2: Non-contractual protection of trade secrets

Contractual protection is not absolute and is subject to limitations that define its scope. According to traditional principles, contractual protection is limited to relationships arising from the contract, and non-parties cannot be bound by a confidentiality obligation. Thus, the practical significance of this protection is diminished as long as its effects are limited to the parties to the contract. Therefore, it was necessary for the jurisprudence to find alternative protection measures (Daoud, 2016, p. 69) in addition to contractual protection.

This led to the creation of non-contractual protection, which extends its scope to all rights regardless of their nature.

One of the most important applications of non-contractual protection in the field of trade secrets is protection under the doctrine of unjust enrichment (first) and unfair competition (second).

First: Protection of trade secrets under unjust enrichment

The claim of unjust enrichment can serve as a legal framework for the protection of trade secrets in cases where there is no contractual relationship or where there are difficulties in applying the rules of unfair competition.

Under the unjust enrichment provisions, the owner of a trade secret is not limited to the right to use the information, but also has the right to claim compensation from anyone who uses the information without his or her consent.

Algerian legislation addresses the issue of unjust enrichment in Article 141 of Law 90-11 of 25 April 1990, which provides that "anyone who, in good faith, benefits from the work of another or from anything that gives him an unjustified advantage, is obliged to compensate the person who suffered the enrichment to the extent of the benefit derived from the work or the thing".

In order for the theory of unjust enrichment to apply to the protection of trade secrets, the following conditions must be met

1. Enrichment of the infringer by the trade secret: The person who discloses or exploits the trade secrets without the owner's consent must receive an advantage or benefit, whether tangible or

intangible, that can be valued in monetary terms. This benefit is realised through an increase in information in the mind of the enriched party, if he is enriched in terms of information or innovation without justification.

2. Loss to the owner of the trade secret: The disclosure or exploitation of a trade secret must result in a loss to the owner, who suffers the loss of information for which he has invested time, effort and expense.

3. Causal link between enrichment and deprivation: The deprivation must be the main and direct cause of the enrichment obtained by the other party.

4. Unjust enrichment: Enrichment must be unjustified under the law. If the trade secrets are disclosed in a manner that becomes permissible, or if they have been abandoned, or if they have been obtained through reverse engineering, then the legal justification is met and a claim for unjust enrichment cannot be established (Daoud, 2016, p. 69).

Based on the above, it is possible to resort to a claim of unjust enrichment in cases where the trade secret is disclosed or exploited by another party without proper justification, provided that the conditions are met. However, it is preferable to pursue the claim on the basis of tort liability and unfair competition, since compensation based on unjust enrichment is conditional on the enriched party's obligation to reimburse the value of what it has gained at the expense of the deprived party, or the value of what the creditor has lost, whichever is lower. Thus, if the value of what the infringer has gained from the secret is greater than the value of what the holder of the secret has lost, the infringer is only obliged to compensate for the value of what the holder of the right has lost. In tort liability, compensation is determined based on the actual damage suffered by the injured party (Al-Ibrahim, 2012, p. 135).

Second: Protection of trade secrets under unfair competition regulations

Unfair competition refers to competition that results from any act that is contrary to the data of the commercial transaction, whether such data is determined by legal rules or by generally accepted rules in the business environment (Hawas, 2020, p. 83).

Referring to the TRIPS Agreement, it defines unfair competition in Article 39(1), relying on the reference to Article 10 of the Paris Convention for the Protection of Industrial Property, which states that "the countries of the Union undertake to ensure effective protection against unfair competition for the nationals of the Union".

An act of unfair competition shall be deemed to be any act of competition contrary to the honourable customs of industrial and commercial practices".

Thus, the TRIPS Agreement explicitly establishes an international commitment to protect trade secrets based on unfair competition and closes the debate on not considering the violation of trade secrets as an act of unfair competition according to the Paris Convention (Daoud, 2016, p. 71).

As for the Algerian Law 04-02 of 23 June 2004, which establishes the rules applicable to amended and supplemented commercial practices, its Article 26 prohibits "all unfair commercial

practices that violate clean and fair commercial customs by which an economic operator damages the interests of another economic operator or several other economic operators".

In order to bring an action for unfair competition, the elements of tort liability must be satisfied, including:

1. Fault: The element of fault is established by committing actions that violate laws, clean practices, ethical standards and integrity, by committing unfair practices that cannot be exhaustively defined. The element of fault requires

a. Existence of competition: An action for unfair competition can only be brought if there is competition between two similar businesses. It is not necessary that the businesses are identical or absolutely identical, but it is sufficient that there is a connection or relationship, or that the businesses are dependent on each other, so that the unfair competition act affects the activities of the claimant, especially the customer element (Al-Ibrahim, 2012, p. 146).

b. Unlawful competition: This is determined by the existence of a fault committed by a competitor against the owner of trade secrets, which involves violating the latter's rights in a manner that is contrary to legitimate commercial customs and practices. For example, disclosing trade secrets or inciting employees to disclose trade secrets, whether the fault is intentional with the intention of harming the owner or the result of an unintentional fault committed in the course of competition (Daoud, 2016, p. 70).

Referring to Article 58 of the Egyptian Law for the Protection of Intellectual Property Rights, we find that it specifies the acts that constitute the element of fault in unfair competition. It states that the following acts are contrary to fair trade practices and constitute unfair competition:

- Bribing employees in possession of the information to obtain it.
- Encouraging employees to disclose information that they have learned in the course of their employment.
- Disclosure of information by a party to a confidential information contract.
- Obtaining information from its place of storage by any unlawful means, such as theft, espionage or other.
- Obtaining information by fraudulent means.
- Using information obtained by any of the above acts with knowledge of its confidentiality and that it was obtained by any of these acts.

Any infringement on undisclosed information resulting from the aforementioned acts, such as disclosure, possession or use of the information by a third party who is not legally authorised to do so by the rightful owner, shall be considered an infringement.

It appears that the Egyptian legislator has provided these acts as examples and not as an exhaustive list, which is the same approach taken by the Algerian legislator when specifying acts of unfair competition, for example, under Article 27/3 of Law 04-02, which may include within the scope of trade secrets: exploiting a distinctive technical or commercial skill without the

authorisation of its owner, benefiting from professional secrets as a former employee or partner with the intention of harming the employer or former partner.

2. Element of harm:

Damage refers to any infringement of a person's rights or legitimate interests. It is considered proven if it has occurred or is certain to occur in the future. There is no doubt that the harmful act of disclosure or use of trade secrets causes damage to the owner of the secret by reducing his competitive advantage. Therefore, it is not sufficient that the mistake has occurred; it must result in damage to the owner of the secret.

3. Causal link between the error and the damage:

The damage suffered by the owner of the confidential information, whether actual or potential, such as the diversion of customers as a result of unfair competition arising from the actions of the competing trader, must be proven. In reality, proving causation in an unfair competition case is not an easy task. While it is possible to prove the connection between the mistake and the actual damage, it is difficult to establish when the damage is potential. Therefore, in an action for unfair competition, it is not necessary to prove causation when the damage is potential. In such cases, the judgment does not award compensation for the potential damage, but orders the necessary measures to prevent its occurrence (Naji, 2016-2017, p. 108).

If the elements constituting unfair competition are present, the aggrieved owner of the secret has the right to file a lawsuit to stop the harmful acts in order to prevent further damage and its continuation. In addition, he has the right to claim compensation for the losses suffered or lost profits.

It is worth noting that an action for unfair competition seeks to achieve two objectives: first, to remedy the harm caused by unfair competition and compensate for the actual harm that has occurred; and second, to take preventive measures to prevent potential harm that is feared but has not yet occurred, without requiring the claimant to prove the harm (Al-Ibrahim, 2012, p. 135).

Second issue: Criminal Protection of Trade Secrets

The TRIPS Agreement has emphasised the criminal protection of intellectual property rights, including the protection of trade secrets under Article 61. The Egyptian legislator has adopted the same approach under Article 61 of the Egyptian Law for the Protection of Intellectual Property Rights.

As for the Algerian legislator, since trade secrets are not regulated as a form of industrial property, it is necessary to refer to the general provisions of the Penal Code (first part) and Law 04-02, as amended and supplemented (second part).

First issue: Criminal protection of trade secrets under the Criminal Code

The absence of a specific legal provision in the Criminal Code on the criminalisation of attacks on trade secrets requires the application and interpretation of certain offences in order to provide criminal protection for trade secrets and thus achieve legal certainty.

First: Criminal protection of trade secrets under the theft provisions

Article 350/1 of the Algerian Penal Code states: "Anyone who embezzles what does not belong to him shall be considered a thief and shall be punished by imprisonment for a term of one to five years and a fine of DZD 100,000 to DZD 500,000".

The crime of theft is the criminal provision that determines the scope of criminalisation and the associated penalties by focusing on the physical acts and criminal intent. The essence of the crime of theft lies in the act of misappropriation, which involves the transfer of money or movable property from the possession of the victim to the possession of the perpetrator or a person who does not have the right to possess it. This misappropriation must involve movable property belonging to another, provided that it has value, whether commercial, material or intellectual, and that this property is capable of being transferred from one place or person to another (Hajjaj, 2021, pp. 561-562).

Some legal scholars argue that the crime of theft cannot be applied to trade secrets because the crime of theft requires the transfer of money from the possession of the victim to the perpetrator. However, this does not apply to trade secrets because they relate to a specific idea or method of operation, and even if they are taken, the idea remains with its owner because it is something that is linked to a person's personality and cannot be separated (Jidi, 2019, p. 403).

However, this argument has been criticised on the grounds that there are examples of non-material things that have been prosecuted as theft, such as electricity. This is the same position taken by the Algerian legislator in Article 350/2 of the Penal Code, which states that "the same penalty shall apply to the misappropriation of water, gas and electricity". Therefore, the provisions of the crime of theft can be applied to trade secrets, especially since information, regardless of its material possession, can be valued in monetary terms.

Accordingly, the French judiciary has sought to adapt the offence of misappropriation to include intangible property in order to protect trade secrets in the absence of specific provisions for their criminalisation (Dhikraa, 2007, p. 173).

Second: Criminal protection of trade secrets in accordance with the provisions of the crime of economic espionage.

Economic espionage includes all methods, systems and approaches by which an individual or a group of individuals (a company or a state) aims to obtain important information and economic benefits without the consent of its owner, relying on illegitimate means (Hawas, 2020, p. 86).

The Algerian legislator has regulated the offence of economic espionage in Article 302 of the Penal Code. It states that "anyone who works in any capacity in an institution and discloses or causes the disclosure of the institution's secrets to foreigners or Algerians residing abroad without authorisation shall be punished by a prison sentence of two to five years and a fine of 20,000 to 100,000 dinars.

If these secrets are disclosed to Algerians residing in Algeria, the penalty is three months to two years' imprisonment and a fine of 20,000 to 100,000 dinars.

The maximum penalties referred to in the previous two paragraphs shall be imposed if the secrets concern the arms industry or munitions of war belonging to the State.

In all cases, in addition to the above, the offender may also be sentenced to a minimum of one year and a maximum of five years deprivation of one or more of the rights provided for in Article 14 of this law".

Third: Criminal protection of trade secrets under the provisions of the crime of disclosure of professional secrets

Article 301/1 of the Algerian Penal Code stipulates that "doctors, surgeons, pharmacists, midwives and all persons entrusted by virtue of their actual or professional status or their permanent or temporary employment with secrets which have been disclosed to them and who disclose them in cases other than those provided for by law shall be punished by imprisonment for a term ranging from one to six months and a fine ranging from 20,000 to 100,000 Algerian dinars, as determined by law".

It is clear from the text of this article that the legislator has imposed a duty of confidentiality on all persons, without exception, who, by virtue of their situation, profession, permanent or temporary employment, are entrusted with secrets. Therefore, if they disclose information to which they have become privy in circumstances other than those permitted or required by law, they shall be punished in accordance with the Penal Code. This is because the offence of disclosing professional secrets requires the perpetrator to possess a certain quality, namely, to be a person exercising the profession or employment (Hajjaj, 2021, pp. 563-564).

In addition to the above, it can be said that professional secrecy can provide protection for trade secrets, but it is a limited partial protection and does not represent a comprehensive stand-alone theory, considering that the scope of criminalisation is limited to individuals who possess the quality of being entrusted. Thus, if a secret is disclosed by someone who is not entrusted, the crime is not established, such as when an employee discloses trade secrets to someone who then discloses them to the employer's competitor (Hajjaj, 2021, pp. 564-565).

Second branch: Criminal Protection of Trade Secrets under Law 04-02, as Amended and Supplemented

Article 61 of the Egyptian Law for the Protection of Intellectual Property Rights stipulates: "Without prejudice to any harsher penalty prescribed by another law, anyone who discloses, possesses or uses protected information by unlawful means, knowing that it is confidential and that it was obtained by such means, shall be punished by a fine of not less than ten thousand pounds and not more than fifty thousand pounds. In the event of a repeat offence, the penalty shall be imprisonment for a term not exceeding two years and a fine of not less than fifty thousand pounds and not more than one hundred thousand pounds".

Similarly, the Algerian legislator has established criminal protection for victims of unfair competition under Law 04-02, which sets out the rules applicable to commercial practices, as amended and supplemented. Article 27 defines, *inter alia*, unfair competition. Therefore, we will try to identify (first) what touches on trade secrets and (second) the penalties provided for.

First: Unfair competition related to trade secrets

Based on the text of Article 27 of Law 04-02, as amended and supplemented, we can extract aspects related to trade secrets, including

1. The use of distinctive technical or commercial skills without the authorisation of their owner, as defined in Article 27/3 of Law 04-02. The legislator's use of the term "distinctive technical or commercial skills" is not in line with the modern approach to trade secrets, as skills are inherently linked to the personality of an individual and are not transferable. Therefore, skills fall outside the scope of application of trade secrets. How can an economic agent exploit a skill without authorisation if it is inherently non-transferable? (Hajjaj, 2021, p. 266).
2. The enticement of contract employees of an economic agent in violation of labour legislation, as provided for in Article 27/4 of Law 04-02. Employees play an important role in business operations, as they are constantly present in the company and can closely observe various secret and non-secret techniques. Tempting employees to divulge trade secrets through bribery, by taking possession of something that belongs to someone else, constitutes an indirect assault, and one of the temptations considered essential for this offence is the offer of bribes, privileges, gifts or undeserved benefits to divulge trade secrets. It is worth noting that Article 27/4 of Law 04-02 requires that the inducement come from a competitor targeting the same or similar customers. Temptation by a non-competitor does not fall within the scope of this article. If done with malicious intent, it constitutes an unlawful means of obtaining trade secrets (Hajjaj, 2021, p. 567).
3. The use of professional secrets as a former employee or partner, as described in Article 27/5 of Law 04-02. By recognising this act as a form of unfair competition, the legislator aims to protect employees or former partners who benefit in any way from trade secrets they have become aware of, resulting in damage to the former employee or partner.

Second: Penalties for unfair competition offences

The offences specified in Law 04-02, as amended and supplemented, are conduct offences, i.e. they do not require a moral element; the material element alone is sufficient, since they are economic offences. Article 38 of Law 04-02 provides for a fine of between fifty thousand Algerian dinars (50,000 DZD) and five million Algerian dinars (5,000,000 DZD).

According to Article 47 of the same law, the penalty is doubled in the event of repetition. This occurs when an economic operator commits another offence relating to his activity within two years of the expiry of the previous penalty for the same activity. The judge may temporarily prohibit the convicted economic agent from engaging in any of the activities referred to in Article 02 of Law 04-02, as amended and supplemented, for a maximum period of ten (10) years.

In addition to these penalties, a term of imprisonment ranging from three (03) months to five (05) years may be imposed

In addition, Article 46 of Law 04-02, as amended and supplemented, allows the competent regional governor, on the proposal of the provincial director of commerce, to impose administrative closure measures on commercial establishments for a period not exceeding sixty

(60) days. This decision is subject to judicial appeal and, if it is overturned, the economic operator concerned has the right to claim damages. Pursuant to article 48 of the same law, the competent regional governor and the judge may publish their decisions, in full or in summary, in the national press or display them prominently in designated places, at the expense of the offender or the person finally convicted.

Conclusion:

Trade secrets are a form of industrial property characterised by their secrecy, which is the essence and basis of their protection. This secrecy confers on its owners a competitive advantage and a commercial reputation that compensates them for the material and moral effort expended in obtaining it. The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) included undisclosed information among intellectual property rights for the first time. In accordance with this agreement, many countries have enacted legislation on this branch of law in their national legislation, similar to the Egyptian legislator, unlike the Algerian legislator, who has not specifically addressed trade secrets in any legal framework.

The protection of trade secrets is essential given their economic value. Therefore, we recommend that the Algerian legislator expedite the enactment of independent legislation to regulate them, without oscillating between general rules of criminal or civil law and the law related to rules applicable to commercial practices. Trade secrets have their own unique characteristics that distinguish them from other forms of industrial property. Therefore, on the one hand, the existence of a law dedicated to their regulation in Algerian legislation is a demand and a necessary condition.

On the other hand, the creation of a law on the protection of trade secrets would increase the legal security of large companies and support the efforts of the Algerian State to adapt its legal system to the requirements of its accession to the TRIPS Agreement and the World Trade Organisation.

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