

DOI: 10.5281/zenodo.11425153

THE CONCEPT OF INNOVATION UNDER THE LEGISLATION OF INTELLECTUAL PROPERTY RIGHTS IN THE UNITED ARAB EMIRATES-A THEORETICAL STUDY

Noori Hamad Khater¹, Mohammed Zaheeruddin²

¹Professor of Law, College of Law, United Arab Emirates University (UAEU), Al Ain, United Arab Emirates, P.O. Box No. 15551, Telephone No. 00971-50-7131849. Email: n.khater@uaeu.ac.ae <https://orcid.org/0009-0005-3077-2698>

²Professor of Law, College of Law, United Arab Emirates University (UAEU), Al Ain, United Arab Emirates, P.O. Box No. 15551, Telephone No. 00971-50-1383556. Email: Z_Mohammed@uaeu.ac.ae, Orcid ID: <https://orcid.org/my-orcid?orcid=0000-0001-6450-1136>

*Received: 11/11/2025**Accepted: 18/12/2025**Corresponding Author: Mohammed Zaheeruddin
(Z_Mohammed@uaeu.ac.ae)*

ABSTRACT

The legislation of intellectual property rights in the United Arab Emirates uses different definitions to explain the term "innovation." For instance, in legislating copyrights and neighboring rights protection, innovation is defined as "originality, an author's special and distinctive personality reflected in their work. However, with the legislation of industrial property rights, innovation is defined as "novelty" in an invention. Innovation is an essential element for granting protection under the intellectual property law; it implies several meanings and connotations according to the type of intellectual property. The object of this paper is to critically analyze the concept of innovation for all elements of intellectual property as defined in the different types of intellectual property-related legislation in the United Arab Emirates. In this regard, research has followed the doctrinal and comparative legal research methodology. The research found that innovation refers to the novelty of industrial drawings and models, to originality and exclusivity in digital chips, to "distinction" in trademarks, and to stability and homogeneity in plant varieties. The study recommends that the definition of innovations under different legislations of intellectual property rights should be limited to two major concepts: originality and novelty.

KEYWORDS: Creation, Innovation, Novelty, Originality, Trademark, Patent, and Intellectual Property Rights.

1. INTRODUCTION

In the United Arab Emirates, the concept of innovation has been addressed through different definitions and interpretations in the different legislations. These include literary works, artworks, neighboring rights, inventions, industrial drawings, designs and models, topographic lines of integrated circuits (digital chips), trademarks, or plant varieties. Although innovation is considered an essential requirement for the protection of any element of intellectual property, it is not possible to adopt a unified concept for this protection, given that each element has a different origin. Nonetheless, it is safe to say that innovation does indeed have a general concept that involves all elements of intellectual property. As innovation is the product of mental production, that is, it is the outcome of a rational process that involves both originality and novelty.

In this regard, the general definition of the term innovation could be specified as "it is the introduction and development of a new idea, or the creation of something new that has never been known previously" (Al Monjed, 2007). That is, to create something out of nothing. Interestingly, the legislators of intellectual property rights did not adopt this concept unanimously or as per this exact definition. Instead, the definition was interpreted differently according to the nature of each element of the different elements of intellectual property.

The United Arab Emirates' (UAE) legislative policies on intellectual property rights do not have a specified definition or meaning for the concept of innovation for each element of intellectual property. For example, for literary works and artworks, the concept of innovation is originality. However, concerning the protection of plant varieties, innovation is replaced by the concept of distinctiveness. In addition, the concepts of novelty or exclusivity, rather than innovation, are used for the following elements of intellectual property: industrial drawings and models, trademarks, and electronic chips. Therefore, we believe that an accurate definition of innovation requires a careful investigation of the various elements of intellectual property. To avoid any confusion or ambiguity, it is imperative to establish an accurate definition for innovation to protect the different elements of intellectual property.

Thus, a clear concept will be specified and adopted for the term innovation for each element of intellectual property. This specification process will be based on the following major facts:

(i) Originality is an objective requirement for the

protection of works, as well as the protection of industrial drawings and models as per Article 1 of Federal Decree-Law No.: 38 of 2021 on Copyrights and Neighboring Rights Protection

- (ii) The concept of novelty is the main objective requirement for the protection of the elements of industrial property, especially for inventions. However, with electronic chips, a unique concept will be used – original intellectual effort – represented by lack of exclusivity (Articles 1, 5, 43 & 55 of Federal Law No. 11 of 2021) as per the Regulation and Protection of Industrial Property Rights or the preregistration of a trademark (Articles 1 to 12 of Federal Decree-Law No. 36 of 2021 on Trademarks Protection)
- (iii) For the protection of plant varieties, four main concepts will be involved to fulfill the requirement of innovation (novelty, distinction, homogeneity, and stability). These can be identified within the scope of originality and novelty (Article 5 of Federal Law No. 17 of 2009 on New Plant Varieties Protection).

The reference to relevant intellectual property laws reveals that the term "innovation" is interpreted differently across various laws, including originality in copyright, novelty in industrial property, distinction in trademarks, and stability and homogeneity in plant varieties. Therefore, this research will examine how the legislation of the United Arab Emirates has addressed the ambiguity in the legal definition of "innovation" within its intellectual property laws.

2. METHODOLOGY

The study analyzes the legal norms pertaining to different legislations of intellectual property rights in the United Arab Emirates and explores how the term innovation is defined in various legislations to suit the different kinds of intellectual properties. The legal comparative method was used to evaluate the positive law, legal principles, statutory regulations, and expert doctrine.

3. DISCUSSION

3.1 Originality and Innovation

According to the threshold of originality, the concept of innovation is based on the level of intellectual effort made by a person for the purpose of producing an intellectual outcome through the expression of their thoughts and ideas. This expression can include linguistic, acoustic, and visual elements, or represent the transformation of those

elements into symbols constituting an algorithm for computer software. Hence, originality is not just limited to the innovation of something new that has never been made previously but pertains to the intellectual effort that distinguishes one person's efforts from the efforts of another person. Nonetheless, the wide variety of existing works, as well as the emergence of new types of works, has resulted in differences in the interpretation of jurisprudence. That is to say, some jurists have decided to adopt the subjective standard for the interpretation of originality, while others have decided to adopt the objective standard. In the end, the relevant legislation combined the two standards.

3.1.1. The Subjective Standard of Originality

By the late eighteenth century and the early nineteenth century, there was a call for the protection of literary works and artworks (e.g., music and other audio works). Consequently, several pieces of legislation were passed in Britain and France to protect all types of works. However, these pieces of legislation failed to stipulate clear terms and conditions for the protection of literary works and artworks. For instance, the protection of works protected the publisher rather than the author. In addition, the legislation was limited to a major stipulation that a work may not be copied from another work that was published earlier. There was no consideration of the work's originality and status as a potential innovation.

With the growth and diversity of the publishing industry and literary works that included speech, language, audio-based artworks, and animated or non-animated images, authors began to call for the protection of their rights against publishers and others (Nouri, 2021). Therefore, both the judiciary and jurisprudence began to stipulate requirements for the protection of artworks. For example, it was stipulated that a work may not be copied from another prior work, and the work should express the personality of its author (i.e., its innovator). In other words, to be considered a protected work, the work should be original (not copied from another work) and reflect the distinctive personality of its author. Specifically, the work should convey the fingerprints of its author to convey their thoughts and ideas, be it a novel, scientific works/natural sciences, history, etc.

Originality refers to how a work is expressed rather than the ideas themselves, which cannot be protected, irrespective of whether they are new or previously known, as per Article 3 of the Federal Decree-Law on Copyrights and Neighbor Rights

Protection. Article 3 of the Federal Decree-Law on Copyrights and Neighbor Rights Protection has stipulated that "the protection does not cover ideas, procedures, work techniques, mathematical concepts and principles, and facts that are abstract yet applicable to the innovative expression of any one of them." Hence, the decisive factor here is the work's *expression*, which conveys the distinctive character of the author. In other words, two different works may address the same subject, but each work can provide its own special and distinctive expression of this subject. For example, when reviewing the two works, it would be easy to distinguish between the two different expressions of each author.

Thus, to be eligible for legal protection, the work should first fulfill the requirement of conveying a distinctive and original expression and reflect the distinctive character of the work's author. This requirement is the cornerstone on which the judiciary and jurisprudence have based their interpretation of the threshold of originality, or its synonyms innovation, distinction, and novelty. For example, in the Federal Decree-Law No.: 38 of 2021 on Copyrights and Neighboring Rights Protection, the legislator used the term innovation, which is defined in Article 1 as follows: "It is the innovative attribute that grants the work a sense of authenticity and distinctiveness." The term "work" is defined as follows: "It is any creative product in the field of letters, arts, or science, of whatever type, expression method, significance, or purpose."

Based on this requirement of innovation, "derivative works" are defined in the same article as follows: "It is a work derived from an already existing work, such as translations, collections of literary and artistic works, and collections of folkloric expressions, as long as being innovative in terms of the arrangement or selection of their content." In addition, the term author is defined in the same decree-law as follows: "He is a person who creates a work." Hence, the term innovation is the main and predominant term used in this decree-law. Concerning its definition, the legislator used the terms "authenticity" and "distinctiveness" (i.e., originality and distinction).

However, the requirement of innovation or originality is not stipulated in the definitions of "neighbor rights" or "performers," which could raise the following question: how could a performer be eligible for legal protection if their performance is not original in a way that distinguishes them from other performers? Therefore, the performer's performance shall be identified as original along with the work itself, hence reflecting the performer's distinctive

personality that differs clearly from the personality of other performers. In other words, legal protection cannot be granted to any performer presenting a literary work or some artwork, just because this performer does not imitate another performance. Such a claim will actually support the old concept that if the work was not copied from other works, it could receive legal protection.

The Federal Law No. 11 of 2021 on the Regulation and Protection of Industrial Property Rights has used the term originality with regard to electronic chips. Article 55 of this law states the following:

(1). The Integrated Circuit Layout Designs, if original, and are the outcome of an intellectual effort made by the owner of such and are not among the general knowledge common to the owners of the relevant industrial art, shall enjoy protection pursuant to the provisions of this law.

(2). The layout design is deemed original if the coupling of its components and the connection with each other is original in itself, although the components that make it up may fall within the general knowledge common to those of the relevant industrial art.

The same law has not used the term originality for industrial drawings and models, using instead the term novelty (e.g., the drawing shall be novel). In this regard, we believe that the legislator should have used the term originality, taking into account that the industrial drawing is actually the closest type of work to the works protected by virtue of the Copyrights and Neighboring Rights Protection Law. In support of this view, Article 39 of the decree-law has provided several stipulations for the protection of moral rights and other related artistic rights under the name Industrial Drawings Protection. In addition, the Federal Decree-Law No. 36 of 2021 on Trademarks Protection has not used the term originality with trademarks, using instead the term distinction (e.g., the trademark shall be distinctive; Article 2 of the Federal Decree-Law on Trademarks Protection).

Obviously, it is not possible to generalize the term originality to each type of intellectual effort. Its traditional concept (pursuant to the Subjective Standard) cannot be applied to works other than literary works and artworks. Originality represents the author's personality in their work, while other elements of intellectual property do not necessarily highlight the innovator's personality, but rather reflect the innovation's distinctiveness from other similar innovations. Even in the field of literary works and artworks, the decisive factor in some works is based on the creative character (e.g., the

innovative effort), regardless of any assessment or investigation into the author's personality. This fact is mainly attributed to the nature of the expression presented in these works. For example, with computer software, it is not always possible to identify the programmer's personality. However, the threshold of originality is fulfilled through the originality of the author's functions. The same applies to compound or derivative works, databases, and works' titles, which are considered legally protected works, despite not fulfilling the threshold of originality pursuant to the subjective standard. Instead, they fulfill the threshold of originality of the subjective standard (Articles 2 (2) & 12 of the Federal Decree-Law on Copyrights and Neighboring Rights Protection).

3.1.2. *The Objective Standard of Originality*

According to the objective standard, originality can be defined as follows: "It is the intellectual effort which distinguishes one innovation from other similar innovations." Thus, in literary works and artworks, originality can be defined as follows: "It is the intellectual effort which distinguishes one work from other similar works." Hence, according to the objective standard, a work may not be considered an extension to the author's personality, but rather an expression which distinguishes one work from other works. Consequently, if this expression is neither common nor copied from other works, it shall be considered original. "Originality" does not necessarily imply that the work shall be novel, but it shall differ from other works in terms of its expression or functions. A novel may not be considered original if it involves characters and sequences of incidents and events that are similar to those of another previously published novel, as it will lack the required distinctive intellectual effort.

Thus, computer software, databases, works' titles, and compound works should all be considered legally protected works, as long as the threshold of originality is fulfilled (i.e., through the distinction of these works from other similar works in terms of distinctive expressions or new functions). For example, originality with computer software is measured based on the functions provided by the software for operating a computer device or data processing. This, in turn, is based on logical orders that have been prepared by the programmer through algorithm systems and programming languages. Hence, any new function introduced for the purpose of improving the computer performance or the data processing method shall be considered an original work that is eligible for legal protection.

In this regard, it is safe to say that the Federal Decree-Law issued on Copyrights and Neighboring Rights Protection has adopted the subjective standard. Article 1 of this decree-law has provided three major definitions for innovation, author, and work, as follows:

It is an innovative attribute that grants the work a sense of authenticity and distinctiveness. Work is any creative product in the field of letters, arts, or science, of whatever type, expression, method, significance, or purpose. An author is a person who creates a work.

Evidently, all definitions confirm that innovation is the intellectual effort that distinguishes the intellectual production itself, regardless of the author's personality. In other words, since work is the product of intellectual production, this work must represent some creativity that is distinctive from other works. Here, innovation refers to the work's creative character of being both original and distinctive from other previous works. This creative character is the reflection and result of intellectual effort in the work.

This concept may apply to electronic chips, too. Article 55 of the Federal Law No.: 11 of 2021 on the Regulation and Protection of Industrial Property Rights stipulates that to grant legal protection to layout designs for integrated circuits, the design shall be deemed as original. This is because it is the result of a new intellectual effort in the industrial technical community in the field of electronic chip innovation (e.g., layout designs). In other words, the design shall be uncommon or uncirculated amongst the concerned sectors. However, the threshold of originality may be compromised if the design is recognized. In this case, such a compromise may only be proven by comparing the design in question to other similar designs (e.g., based on the functions of each design). Any claims in this regard shall be dismissed if the new design has added a new function (e.g., accelerating the transfer of electronic charges). In addition, pursuant to Article 2 of the Federal Decree-Law No.: 36 of 2021 on Trademarks Protection, the threshold of originality may apply to trademarks; since the trademark may not be granted legal protection, unless it is distinctive from other trademarks.

According to the objective standard, originality may not be acknowledged as merely an innovation. The legislation of Copyrights and Neighboring Rights Protection does not provide legal protection for thoughts and ideas mentioned in the work, or for the work (i.e., its function or material value in the market). However, the legislations provide legal

protection for the work's expression only (Article 3 of the Federal Decree-Law on Copyrights and Neighboring Rights Protection). Hence, if the decisive factor here is attributed to the work's distinction from other works or to the work's new functions, then a legal obligation shall take effect to protect the work's ideas and functions, as well as its material value. An obstacle that will hinder the targeted circulation of works as the main axis of spreading culture and science around the world. That is to say, anyone who adopts an idea from a previous work and reintroduces this idea through a new expression and different style will be considered as an aggressor (i.e., an imitator).

Therefore, we believe that the subjective standard of originality is much better for the protection of the following rights: a) the author's copyrights; b) the audience's right to have unrestricted access to all works; and c) the right of other authors to adopt different ideas from various works and to reintroduce those ideas through new expressions and different styles reflecting the distinctive character of the author's personality. However, if some works do not involve any expressions intended for the audience (e.g., computer software), then those works may be protected pursuant to the objective standard as an exception, unless their innovation constitutes a new invention.

3.2. *Novelty and Innovation*

With industrial property, novelty has several ranks, levels, and degrees with reference to an innovation or new invention. In this context, the concept of novelty with industrial designs and models is quite close to the concept of objective originality of works. Novelty about digital chips has its own special conceptual definition, and its significance is merely a formality with trademarks.

3.2.1. *Novelty as an Absolute Innovation*

An invention may not be granted its patent unless it is an innovation that has never been accomplished and has never occurred to professionals in the field of this invention. That is to say, if the general concept of innovation is concerned with the development and execution of an idea, then the concept of invention is closely related to the creation of something new that has never been known previously (Chavanne et al., 1998), which is the objective requirement for the invention's acknowledgement and patent.

In this context, both Article 1 and Article 5 of the Federal Law No. 11 of 2021 on the Regulation and Protection of Industrial Property Rights have addressed novelty in invention as a creative or

innovative idea, introduced by the inventor to solve a technical problem, previously unknown to professionals in the field. In Clause 5 of Article 5, novelty is addressed as the inventive step towards an invention, which has never been common knowledge to an ordinary professional (The Articles 11-14 of the Intellectual Property Law of 1992). Hence, the introduction of industrial ideas, which could be developed by anyone through ordinary effort, may not be considered an innovation that is eligible for a patent (Nouri, 2021). However, a utility certificate could be quite sufficient.

For instance, a new idea like designing single-use tissue bed covers that can be pulled from a roll fixed above patient beds does not constitute an invention. Such an idea may easily occur to professionals in the field. Another new idea, like installing screws around electricity poles to prevent anyone from climbing those poles, is also not an invention that is eligible for a patent. Therefore, novelty in inventions is specified per the concept of an innovation that is meant to achieve a new industrial application, or to improve the application of a prior invention through new functions (Article 5 (2) of the new Industrial Property Law).

Consequently, if the requirements of novelty are not fulfilled in this sense, such novelty may be expressed by the concept of objective originality with works. Alternatively, the inventor may be granted a utility certificate, which is defined in Article 1 of the new UAE Industrial Property Law as follows: "It is a protection deed granted by the Ministry for an inventive step that is not sufficient to be granted a Patent". In addition, Article 6 of the same law has confirmed the following: "A utility certificate shall be granted for every new invention that is industrially applicable, but which does not result from a sufficient inventive step to be granted a patent".

On this basis, a number of questions are raised as follows: What is the meaning of an insufficient inventive step in light of the utility certificate? Does it refer to innovation in its general concept of developing and executing an idea? Does it refer to originality, based on a new idea that is distinctive from other ideas concerning the invention's functions, but which are not sufficient to be deemed a previously developed innovation?

In this regard, we believe that the decisive factor for novelty in invention (i.e., which makes this invention eligible for a utility certificate) is the distinction of this invention in terms of its technical functions, compared to other already registered inventions at the Intellectual Property Department. Hence, an invention that is granted a utility certificate

may be defined as an invention created by professionals in the same field through reasonable effort. This invention has new functions that are distinctive from previous inventions. Therefore, the concept of novelty here is close to the concept of objective originality with works (i.e., it is a relative novelty). The concept of novelty may also apply to industrial designs and models, but the latter may not be eligible for legal protection if used for industrial functions.

3.2.2. *Relative Novelty*

To be approved for registration by the Intellectual Property Department, an industrial drawing or model has to be an absolutely new design or drawing. The external appearance of this new product or service should fulfill certain aspects and elements that are distinctive from other similar products or services. A new product may involve some exterior elements that are similar to those of a previous product to draw the public's attention to it and acquire legal protection.

For example, the external appearance of soda cans may be similar. However, each brand bears a special design that is distinctive. Such a distinction may involve the exterior drawings or some other design elements. Likewise, the same concept applies to the design of automobiles. The exterior shape of some automobile brands may be traced back to another brand. However, each brand is characterized by a special design that is distinctive from the other brands.

Therefore, it is safe to say that novelty" is relative. It is not imperative to fulfill the requirement of absolute novelty with the external form or drawing of some commodity or service. On this basis, the new UAE Industrial Property Law has not used the term novelty to define the term industrial design, which is defined in Article 1 as follows: "It is any two-dimensional or three-dimensional decorative or aesthetic composition, which gives a special design that can be used as an industrial or handicraft product."

The words (special design) imply the concept of novelty in industrial drawings and models. Any design of a drawing that is affixed on commodities or services, or any design of an external model for some product involving special, distinctive traits that distinguish the exterior shape from others, shall be eligible for legal protection, provided that this design shall be registered at the Intellectual Property Department, and shall not perform any function for the product itself. In other words, the lid of soda cans could involve a special and attractive design.

However, this design may not be eligible for legal protection as a design because it performs a function. Nonetheless, the above definition, as mentioned in Article 1 of the new UAE Industrial Property Law, may imply that the design is intended to perform an industrial function for its product. This is contradictory to the design protection requirements, which specifically stipulate that the design shall be separated from the function of its product (Nouri, 2021).

Furthermore, the legislator has not limited the UAE Law to the term "special design." Thus, in Article 43 of the same law, it is stipulated that to grant legal protection to a design, this design shall be deemed as novel and shall not be disclosed to the public before its registration (as it is an invention that is eligible for a patent from the Intellectual Property Department). Clause 1 of Article 43 states the following: "The industrial design shall be novel," while Clause 3 of the same article has stated the following: "An industrial design shall be deemed novel, unless it has been disclosed to the public, by publication, use or any other method, prior to the filing date of the application."

The concept of "absolute novelty" may not be taken for granted with industrial drawings and models. "Relative novelty" would be a more accurate standard to fulfill the objective requirement of protecting designs in all shapes and forms. This would include a drawing, or a model inspired by previous drawings or folklore, altered and modified to transform into an attractive product that is uncommon and unknown, or is known to professionals of the designers' community. For instance, if the designer is inspired by a chandelier from the Renaissance Era and redesigns this chandelier into a smaller size, this new design shall be deemed as novel. In addition, using the shapes of birds and animals, and drawing them distinctively and attractively on fabrics, is deemed a new design that is eligible for protection upon its registration. In case of failing to register the design at the Intellectual Property Department, the designer may not invoke the Copyrights and Neighboring Rights Protection Law, given that the design is a form of expression that is intended for the audience. If a design is original and distinctive from other designs (i.e., not copied), if it draws the public attention (i.e., is not common), and is derived from prior designs, but reintroduced in a different and attractive appearance, this design shall be eligible for legal protection. Therefore, the new UAE Industrial Property Law has acknowledged that the designer shall be entitled to invoke the Copyrights and Neighboring Rights

Protection Law, in order to protect their design (Article 39). On this basis, the requirement of novelty with designs does not mean that those designs have not been accomplished previously. However, the novelty here refers to the distinction of the design's product from other similar products in a way that attracts the audience to this product. That is, the product was not commonly seen by the audience previously. This fact has also been stated by virtue of the UAE Industrial Property Law for the legal protection of Digital (Electronic) Chips.

3.2.3. *Novelty as an Uncommon Innovation*

In addition to the above, the concept of novelty could also be taken into consideration from the perspective of the audience. That is, whether it is well-known to the audience or not. The UAE Industrial Property Law has used the term "uncommon" with reference to an integrated circuit, and is defined in Article 1 of this law as follows:

It is every product in its final form or in its intermediate form. It includes components—at least one of which is an active ingredient—fixed to a piece of insulating material, which constitutes, with some or all links, an integrated entity aimed at achieving a specific electronic function.

However, the status of commonality here refers to the lack of circulation amongst the professionals in this field. The circuit might have been known previously, but professionals in the field of integrated circuit layout designs had no previous knowledge of this circuit.

Therefore, Article 55 of the new UAE Industrial Property Law has stipulated the following:

"1. The Integrated Circuit Layout Designs, if original, and are the outcome of an intellectual effort made by the owner of such, and are not among the general knowledge common to the owners of the relevant industrial art, shall enjoy protection pursuant to the provisions of this law.

2. The layout design is deemed original if the coupling of its components and the connection with each other is original in itself, although the components that make it up may fall within the general knowledge common to those of the relevant industrial art.

According to this technical definition for the integrated circuit layout designs, as adopted by the new UAE Industrial Property Law, it is not possible to elicit the objective requirements of protection. For instance, digital chips are lines made of silicon chips in the form of very fine wires, wrapped in three-dimensional circuits and fixed on plastic plates. These circuits are connected to transfer electronic

charges when their temperature is above zero. Thus, if their temperature drops to zero or below, they stop transferring charges, which is why they are called semiconductors. In this context, an innovation could be introduced when the designer achieves an increase in the energy of electronic charges by increasing the number of silicon wires that form the circuits. The designer may create new circuits to add to existing charges. Increasing the charges means increasing the speed of the information, both in quantity and quality, and is managed and controlled by the computer program (Daniel, 1989).

In this sense, the concept of novelty of the design is concerned with the introduction of a new, and hitherto unknown (to competent professionals of this field), functional performance. The lack of commonality mentioned in the provision of this law means that the new design may be noted by creative professionals in this field, but not celebrated as the design is achievable through reasonable effort. Hence, whoever can work out the application of this design may claim protection.

In addition to the term uncommon, the new UAE Industrial Property Law has also used the term originality with novel designs. However, it is not possible to apply originality here, as the application of originality requires expressiveness intended for an audience. However, electronic chips are not meant to address an audience, but to perform technical functions in a computer device or other electronic devices. Therefore, we believe the appropriate term is innovative or creative effort, as each new design that is eligible for legal protection should involve an innovative or creative effort that leads to new chip functions and better performance. Hence, an innovation in the integrated circuit layout designs could be deemed as novel when the designer makes a considerable intellectual effort consistent with that of the competent professionals. In such a case, the designer may be entitled to register his design at the Intellectual Property Department.

3.2.4. Novelty Is Pre-Registration

The new UAE Industrial Property Law has not forfeited the requirement of registration of all elements of Industrial Property to be eligible for legal protection. That is to say, the requirement of registration is inevitable for protection. At the same time, novelty remains as an objective element that is essential for the protection of elements of industrial property. Without novelty, there is no registration. A faulty registration could be cancelled by the judiciary if it is proven that the innovation in question does indeed lack novelty. Nonetheless, trademarks are

considered an exception to this rule as they are not required to meet the criteria of novelty. In the case of trademarks, the priority is given to registration. That is, a person who selects a tangible mark to distinguish their goods or services from other similar counterparts shall register this mark to acquire the legal right against all concerned parties.

In this sense, the function of a trademark is to distinguish the goods (products) or services from other similar counterparts in a way that shall prevent any misinformation or confusion for the audience about the source of these goods or services (Zeineldin, 1999). In addition, this trademark could be inspired by natural shapes or prepared as a design by a natural person. Nonetheless, whether the mark's form is innovative or not, it shall be legally acknowledged as long as it distinguishes a product or service, and provided it is registered at the Intellectual Property Department. Hence, if the trademark is illegal or copied from another mark that has been registered previously, a claim could be initiated before the judiciary for its cancellation (Articles 5-11 of the Federal Decree-Law No. 36 of 2021 on Trademarks Protection).

On this basis, the concept of novelty with trademarks is represented in the "preregistration" of this mark in the name of its owner. A novel trademark is the mark that has been registered first inside the United Arab Emirates or in any other member states of any international conventions in which the United Arab Emirates is a member state (Article 11 of the new Federal Decree-Law on Trademarks Protection). Hence, the trademark's distinction is not in its innovation, but rather in its ability to distinguish the product or service from other similar products or services.

3.3. Innovation between Novelty and Discovery

The legislation of industrial property did not recognize discovery as one of its elements, because discovery does not constitute an invention that is eligible for a patent, as it is not concerned with solving an industrial problem. With the discovery of some natural phenomenon or law, the innovator's intellectual effort here is limited to finding something that has always been there but was unnoticed or unknown. Hence, their effort is merely limited to the introduction of natural laws and phenomena (Darwish, 2001). Therefore, Mousseron (1983), the French Jurist, has defined discovery as "reaping the fruits of nature." However, is it really fair to fully ignore the discoverer's effort (which is, of course, a product of rationality)?

According to the general concept of innovation,

which is based on the development and execution of an idea, we believe that discovery is indeed a form of innovation. Since the discoverer's effort is to unravel some idea that is related to the natural laws and phenomena, such effort shall be acknowledged amongst the elements of intellectual property. The legislators of intellectual property have acknowledged "plant varieties" that have been derived from other previously known plant species for the purpose of improving the plant variety's production, soil stability, and disease resistance against epidemics or plant diseases (Contoir, 1991). Thus, the innovator (breeder) intervenes by taking a part of an existing plant from a certain species (e.g., Fabaceae) to develop its genetic cells biologically or chemically. Doing so increases its production in large quantities and enhances its immunity against climate conditions and soil changes. In addition, the improvement of a plant variety may also involve the innovation of new methods for planting and seeding, as well as new methods of fertilization.

In light of the above, it is safe to say that the breeder's innovation in this field in particular cannot be linked to the concept of novelty, since his intellectual activity is closer to a discovery than an innovation. Therefore, Article 5 of the UAE Federal Law No.: 17 of 2009 on Plant Varieties Protection has stipulated the following: "The right of the Plant Breeder is to be granted, if the new cultivated variety is a discovered variety". That is to say, the breeder (innovator) intervenes to increase the plant's reproduction, and to improve the original plant species, or to discover a new variety that is derivative from the original plant species.

When a breeder improves the production and quality of the genus of Bean from the Fabaceae family, the result of their work shall be considered as a new plant variety if it fulfills the following requirements:

(a) the new plant variety remains homogeneous to the original species in its basic characteristics, despite its new distinctions of more production, better quality, better resistance to climatic conditions, and better interaction with the soil;

(b) the new plant variety is distinctive from any other similar varieties that are known previously inside or outside the state; and

(c) the new plant variety shall be stable (i.e., it shall endure without any damages or changes in its genetic traits over time).

On this basis, the breeder's work does not amount to an innovation that could be considered as "absolutely novel" as any competent professional in the field could achieve the same result of the new

plant variety through reasonable efforts. Hence, the breeder's work here is closer to discovery, taking into consideration that the purpose of legal protection here is to encourage farmers to improve their production creatively, without the pressures of any illegitimate competition. Therefore, Article 5 of the UAE Federal Law No.: 17 of 2009 has stipulated that to be eligible for legal protection after registration, the novel plant variety shall be new, distinctive, uniform, and fixed, hence providing the consumers with new plant varieties at preferential prices.

4. RESULTS

The concept of innovation includes several other concepts and meanings, all of which are based on the principle "to introduce, develop, and execute an idea." As a rational product, innovation is an intellectual effort consisting of several stages, from the development and execution of an idea to the completion of an innovation, or invention. Innovation is basically concerned with two major types of intellectual effort: originality and novelty. Originality is concerned with expression, and novelty is concerned with technical and industrial Ideas.

The expression of a protected work should be original, reflecting the author's personality. This legal protection does not include the work's ideas, value, or importance. However, within the scope of the Copyrights and Neighboring Rights Protection legislation, originality does not apply to works such as titles (which lack any expression), derivative works, anthologies, computer software, and databases, as these works do not express the author's personality. Therefore, originality here shall be based on the objective standard, covering similar works that already exist, as well as the work's function and importance.

This latter concept of originality is close to the concept of novelty in the Industrial Property Rights. In industrial property, the concept of novelty is based on the protection of new ideas that could be represented in a tangible industrial application, including all elements of intellectual property. Concerning works, the concept of novelty is based on abstract expressions where the ideas are not protected. Also, an industrial application is not required, and the expression is the essential factor.

With industrial property, the concept of innovation includes novelty in inventions and discovery in plant varieties. The highest degree is represented in the invention of a new industrial application hitherto unknown to professionals in the field. Absolute novelty is the basic standard for

inventions protection. It is an essential requirement for the legal protection of any innovative invention. Hence, the inventor's owner may state his own terms and conditions for the patent's assignment. Consequently, if the invention lacks the requirement of absolute novelty, the innovator is merely granted a utility certificate, whose costs are less expensive than the licensing costs. The degrees of innovation with other property elements are closer to the concept of objective originality in works. However, they require the fulfillment of an innovative effort involving new industrial ideas that are distinctive from others. In fulfilling this requirement, the innovation in question should first be registered at the Intellectual Property Department.

5. CONCLUSION

The concept of "innovation" is provided with different definitions under the international intellectual property conventions. Innovation is impliedly tied to novelty, improvement,

commercialization, and utility. The study concludes that the concept of innovation is limited to the concepts of originality and novelty. Originality is concerned with works and neighbor rights, and novelty is concerned with industrial property. Nonetheless, the legislation of intellectual property in the United Arab Emirates has used several other terms for the two major concepts. In the field of work and neighbor rights, the law uses the term "innovation" to imply originality, and in the field of industrial property, several other terms are used to imply novelty. This study recommends that for the purpose of harmonization between different intellectual property legislations, they shall be unified and limited to two major concepts, originality and novelty. Both these terms clearly and inclusively define each element of intellectual property. According to each of the several components of intellectual property, originality can be used to define works and neighbor rights, while novelty can be utilized to establish industrial property.

Acknowledgement: We sincerely acknowledge the United Arab Emirates University (UAEU) for sponsoring and supporting our research work.

Funding: The authors declare that no funding from any source was provided for this research work.

Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no important features of the study have been omitted, and that any discrepancies in the study as planned have been explained properly. The research followed all ethical practices.

REFERENCES

Al Monjed, Language and Media (2007) Al Shark Publishing House, Beirut, 42nd Edition, p. 193.

Chavanne A. & Brust I (1998), Propriete Industrielle", Dalloz, Precis (5th Ed., 1998, n 64), p. 63.

Contoir M (1991) Les Obtenations Vegetales et la Projet de la Canadien N 15, in *Nouvelles Technologies et Propriete*", (Colloque, Litec, 1991), p. 82.

Daniel J (1989), Les Origins de l'Adoption d'un Regime de Protection (Sui Generis) des Topographie de Circuit Integres, in *Nouvelle Technologies et Propriete*, (Colloque, Montriel, 1 Er N, Litec, 1995), p. 54.

Darwish Abdallah Ibrahim (2001) The Requirements of Novelty in Inventions according to the Paris Convention, and their Appropriateness to Developing Countries, a Doctorate Thesis, Cairo University, Paragraph 8, p. 79-80.

Mousseron J.M. (1983) Traite des Brevets, Litec, Paris, 1983, N 163, p. 183.

Nouri Hamad Khater (2021) An Explanation of Intellectual Property Rules - Part I: Copyrights and Neighboring Rights, Al Falah Library for Publishing & Distribution, Dubai, 2nd Edition, Paragraph 2, p. 20-21.

Zeineldin Salah (1999) Industrial and Commercial Property", Culture House for Publishing & Distribution, Amman, p. 253-254.