

IP Valuation Form

Innovation value:

Innovation in its comprehensive sense, just like technology, is not an incidence, but a chain process that does not have a fixed pattern, and characterized by change and evolution over time. From the beginning of the Industrial Revolution to the end of the 19th century, innovative efforts were just handled by individuals (natural persons) or at the best scenario by small-scale entrepreneurs. However, during the 20th century, modern systems appeared to manage the innovation process and institutionalize it; as research and development activities became entrusted to special departments of companies and institutions, based on a multidisciplinary scientific staff, and there were even companies specialized in research and development of innovative works to reveal their technical feasibility and productivity, for the benefit of other companies. Accordingly, scientific research has become a collective activity, in which scientific institutions partner with companies that rely heavily on research and development with new entrepreneurs to push the frontiers of knowledge forward.

This tangible development in the management of the innovation process and its transformation from the pattern of individual effort to the pattern of institutional effort, does not negate the role of entrepreneurs, which is still quite important in the process of innovative activity. The term entrepreneur, in its expanded sense, means anyone who has taken the initiative to establish his own project and who manages and leads it.

Industrial property:

Industrial property mainly represents the economic portion of intellectual property, because of its development effects that are countable and measurable. Unlike other types of intellectual property, which although could have countable effects on economic growth, yet are not easy to be estimated.

Patents, trademarks and industrial designs are the most important components of industrial property that contribute to transforming the innovation process from a high-risk and high-cost activity into a profitable investment for the innovator on the one hand, and a renewable source for the accumulation of knowledge stock for the entire society on the other hand.



➤ Patents:

The term patent refers to the exclusive right granted to the owner of an invention, an innovative product, or an industrial process that offers a new way of making something, or a method that represents a technical solution to an existing problem. The patent is represented in an official certificate issued by the patent office of the country where the registration is granted, whereby the patent registrar acknowledges that the invention has fulfilled all the legal conditions and requirements to be granted a letter patent, in accordance with the general provisions of the Paris Convention, TRIPS Agreement, and the domestic common regulations.

For any invention to be patentable, it must be proved to be:

- A- Novel; meaning that it has not been applied for by any other party around the world.
- B- Has an inventive step; that is, it is not obvious to a specialist in the field.
- C- Industrially applicable; that is, it can be produced by current means.

The exclusive right granted to the patent holder is limited to a specific period of time; It is 20 years from the date of submitting the application, as is the case in most countries of the world.

The private benefit is realized when the personal return to the invention holder is realized; since the patent's owner, is legitimately granted an exclusive right over all the moral and material rights resulting from the ownership of this patent within the geographical scope of the place of registration. No other party is eligible to exploit this invention by selling, applying or imitation without the clear consent of the owner.

The moral benefit of the inventor is achieved through the necessity of mentioning his name in conjunction with the subject matter of the invention, whether he is the current owner of the invention or assigns the right of ownership to another party.

While the financial benefit to the patent owner is achieved through several aspects, either by application, sale or licensing to others.

The purpose of public benefits is also achieved when the social return is attained by disclosing the material of the invention. International treaties and agreements obligate the invention's owner to disclose technical information on the subject of the invention, in order to enrich research and development activities and the accumulation of knowledge for all members of society, thus encouraging researchers and inventors to add new innovative steps to those inventions; It leads to more innovations aimed at raising production efficiency and qualitative improvement in the quality of life.

Marketing of technological inventions:

Industrial property plays the most prominent role in promoting inventions. It transforms innovations from mere theoretical product of scientific research and laboratory experiments, into a market product that can be evaluated, sold and licensed. Therefore, industrial property rights in the form of patents, utility models, or industrial design, reflect the market assessment of the innovation material, while adding a legal cover against



imitation or imitation that increases its value in the possession of its owner. It encourages the innovator/researcher to focus his efforts and allocate his resources only in the research and development process, while leaving it to the specialized marketing agencies to promote these innovations in the internal and external markets.

➤ **Trademarks:**

A trademark is everything that distinguishes a commercial product, whether it is a good or service, from other similar or similar products in the local markets. The trademark may be in the form of names that take a distinctive shape, signatures, words, letters, numbers, drawings, symbols, shop addresses, seals, images, embossing inscriptions, or a group of colors that take a special shape. And distinctive. The TRIPS Agreement, 2004, provided a comprehensive definition of the concept of what could be called a trademark.

Marks are generally divided into two main types, namely, traditional signs and non-traditional signs. The difference between them lies in the description of the nature of the mark. Conventional trademarks, whose descriptions and characteristics apply to the conditions that must be met by ordinary trademarks, such as containing names that take a distinctive form.

➤ **Industrial designs:**

Industrial designs in common with patents are primary IP rights, as distinguished from *sui generis*. Industrial design means everything that can constitute the decorative or aesthetic appearance of a piece, as it can consist of two-dimensional elements, such as drawings, lines, and colors, or three-dimensional elements, such as the structure or surface of the piece.

The acceptance of an industrial design requires that it enjoy two basic conditions; namely, **novelty**, that is, it includes fundamental differences from any previous industrial design or model, and **industrial applicability**, meaning that the design is one that can be applied in industrial fields of all kinds. It is worth noting that industrial designs are not required to contain an inventive step, and thus are fundamentally different from patents that adhere to this condition, and perhaps this is what makes the procedures for examining industrial designs more costly and time than patents. Legal protection for industrial designs is restricted to a specific time period, which is ten years, renewable for another five years only, meaning that the maximum legal period for the protection of industrial designs in all countries of the world is **fifteen years**, when the design becomes common after the lapse of this period.

Industrial designs enjoy an approved international classification, according to an international agreement concluded on October 8, 1968 called the Locarno Convention Concerning the International Classification of Industrial Designs, after the Swiss city of Locarno. This agreement resulted in an approved international classification called the Locarno classification. The current classification, released in January 2014, divides industrial designs into 32 international categories. In terms of industrial designs registration paths, they are similar to patents in the possibility of registration through three paths, any of which the inventor can follow to register his innovative design. These paths are registration through the national office, through the regional office, or through the international office



according to the Hague Convention, which allows the protection of industrial designs in several countries or regions with a minimum of formalities (Hague Agreement).

The importance of evaluation:

The market and economic evaluation of any patent invention, trademark or industrial design is a very important process; where it contributes to transforming the invention from just an innovative idea into an **economic asset** that has significant economic value and productive feasibility based on scientific evaluation and technical analysis. If the inventor desires to exploit his invention, whether through production, sale, or licensing, he will base his evaluation on fixed and stable criteria that will lead him to a sound decision.

Note about the evaluation output:

This model is primarily indicative. Its output is based on inputs (data & information) accurately provided by the inventor/right holder. Therefore, the result that will be drawn from this model is an initial scientific evaluation that helps in decision-making, and is not, of course, a guarantee of the validity of the conclusion that the evaluation concludes. Consequently, the more truthful and accurate the data and information provided by the inventor, the closer the evaluation result will be to reality and true in terms of the economic, marketing and commercial significance.

Evaluation methodology:

- a) The inventor/innovator/right holder/evaluation applicant is asked to fill-in a questionnaire form (technical-based) regarding each innovative work separately. It is not possible to include answers for more than one product or innovative work in the same single questionnaire form.
- b) Only questions related to the innovative work are to be answered, and in case the question refers, for example, to an invention, and the work being evaluated is a trademark, the answer is to be left blank.
- c) The selected “yes or no” check-box is to be shaded to denote the answer.
- d) Then the “rating” check-box is to be shaded in terms of evaluating the extent of the choice, where the ratings reflect:
0: (means: not at all) ~ 10: (means: exactly yes)
- e) Then the applicant is asked to write a simplified comment explaining the significance of the choice, or any constructive comment or addition.
- f) At the end of the technical questionnaire, a general score average and a percentage value are to be generated by the evaluator, associated with a technical comment to the technical evaluation result.
- g) Another questionnaire form (economic-based) is to be filled-in by the inventor/innovator/right holder/ evaluation applicant.
- h) At the end of the economic questionnaire, nominal values are to be estimated by the evaluator, associated with an economic comment to the final evaluation result.



Technical Questionnaire Form

1. Novelty:

Is the computer program considered new in the art field or in the local market? How was this verified?

☐ Yes

☐ No

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

2. Innovative step:

Is the computer program encompassing an innovative step? Any counter-intuitive to the operator in the art field?

☐ Yes

☐ No

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

3. Industrial Applicability:

Is the software viable in the market? Or is there something that prevents that at the moment?

☐ Viable

☐ Non-viable

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

4. Production and usage cost:

Will the computer program produce a product/service that is cheaper or more expensive to produce and use than the current products on the market?

☐ Cheaper

☐ Expensive

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐



5. **Innovative Product Weight:**

Will the invention/brand/industrial design make a product lighter or heavier than the current products on the market?

☐ Lighter

☐ Heavier

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

6. **Innovative Product Size:**

Will the invention/brand/industrial design make a product smaller or larger than conventional products?

☐ Smaller

☐ Larger

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

7. **Safety and Health Factors:**

Is the invention/brand product/industrial design safer and better for public health than existing inventions/marks/designs?

☐ Yes

☐ No

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

8. **Environmental Sustainability Factors:**

Does the invention comply more with environmental sustainability standards than existing inventions/products/designs?

☐ Yes

☐ No

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐



9. Acceleration of innovation:

Does the invention capable of doing a job faster or slower than traditional products?
And to what extent?

☐ Faster

☐ Slower

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

10. Ease of use:

Is the invention easier or less easy to use than traditional products? And to what extent?

☐ Easier in usage

☐ Less easy in usage

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

11. Ease of production:

Is the invention easier and cheaper to manufacture compared to what is currently
available in the market? And to what extent?

☐ Easier in production

☐ Less easy in production

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

12. Repairability and maintainability:

Is the invention's repair and maintenance easier compared to traditional products? And
to what extent?

☐ Yes

☐ No

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐



13. Distinguishability of the current innovation:

Is the invention different from traditional products clearly and unambiguously? And to what extent?

☐ Yes

☐ No

0	1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

14. Convenience and Social Utility:

Does the invention make life easier and more convenient for the consumer? And to what extent?

☐ Yes

☐ No

0	1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

15. The general appearance:

Does the innovative product look better than traditional products? And to what extent?

☐ Yes

☐ No

0	1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

16. Accuracy in performance:

Does the current innovation provide greater performance accuracy than current products? And to what extent?

☐ Yes

☐ No

0	1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐



17. Contribute to noise reduction:

Does current innovation work more quietly than traditional products? And to what extent?

☐ Yes

☐ No

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

18. Market:

Is there an existing market for the current innovative product? Or will it create a new market? and how?

☐ There is a market already

☐ It will create a new market

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

19. Existing market size:

Is there an opportunity for a greater market share for the current innovation compared to the products currently available?

☐ Yes

☐ No

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

20. How difficult is it to penetrate the market:

Is the current innovation an improvement on an existing marketable product?
 (If so, it is likely that the current invention will penetrate the market faster than if it is a completely new product)

☐ Yes

☐ No

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐



21. Quality:

Does the current innovation provide a higher quality outcome than the current products? And to what extent?

☐ Yes

☐ No

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

22. Technical/economic life cycle of the innovative product:

Is it possible to sell the current innovation for relatively many years (7-10 years or more)? Is it possible to select?

☐ Yes

☐ No

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

23. Contribute to meeting an existing need:

Does current innovation satisfy an already existing consumer need (*market pull*)? Or does it open up a new area of demand (*technology push*)?

☐ Market Pull

☐ Technology Push

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

24. Production facilities:

Does current innovation require completely new production facilities or just a modest change to an existing production facility?

☐ Modest Change

☐ New Facilities

0 1 2 3 4 5 6 7 8 9 10
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐



25. Market is crowded - medium - vacant:

Are there few or many competitive products currently on the market? And to what extent?

☐ Few☐ Many

0
☐

1
☐

2
☐

3
☐

4
☐

5
☐

6
☐

7
☐

8
☐

9
☐

10
☐



Technical Questionnaire Estimations

Nominal Score	... /250
Percentage	... %
<i>premium advantage points</i>	
<i>relatively weakness points</i>	

Evaluator's Technical Comments:

Revised

We appreciate ... What you innovate



Economic Questionnaire Form

1. Historical Cost of the invention:

How much does it cost (or is it expected to cost) to prepare a final product for the current innovation, in terms of encountering the shortcomings of the previous art, researching, developing, building the new innovative idea, creating prototypes for it, registering and approving it with the concerned authorities (if any), etc.?

Inventor's Answers:

Research and development cost:

Cost of experiments and creation of prototypes:

Construction and final equipment cost:

Cost of registration and accreditation:

Historical costs in total are ranging around:/

2. Preparation and development period:

How long did it take to research, develop, build, equip and prepare the current innovation?

Inventor's Answers:

Total preparation & development period:

3. Total Cost at Today's Rate (Replacement Cost):

According to your estimation, how much does the same process of preparing the current innovation cost at today's price, in terms of encountering the shortcomings of the previous art, researching, developing, building, creating prototypes for it, registering and adopting it with the concerned authorities (if any), etc.?

Inventor's Answers:

Research and development cost:

Cost of experiments and creation of prototypes:

Construction and final equipment cost:

Cost of registration and accreditation:

Replacement costs in total are ranging around:/



4. Suggested Production Cost of Present Innovation:

In your estimation, how much would it cost to produce the current innovation in the market at today's prices?

Inventor's Answers:

Today's production costs in total are ranging around:/

5. Competitor/Similar Product Price:

According to your knowledge, what is the price of the nearest/more like current or potential product of this model in the local market at today's prices?

Inventor's Answers:

Today's price of rival products could range around:/

6. Expected market price of the innovative product:

In your estimation, how much would the current final innovation product (modified and developed up to the moment of this assessment) be priced in the market at today's prices?

Inventor's Answers:

Today's price of the invented product could range around:/

7. Expected Revenues in Case of Direct Production:

In your estimation, how much would the annual income/ sales be if you (or someone else with medium production capacity) took advantage of the current innovation by producing it and selling it as an end product in the market at today's prices?

Inventor's Answers:

a- Annual income for year 2023:

1st year sales:

b- Annual income for year 2024:

2nd year sales:

c- Annual income for year 2025:

3rd year sales:

d- Annual income for year 2026:

4th year sales:

e- Annual income for year 2027:

5th year sales:



8- Expected value in case of ownership-transfer of the present innovation:

According to your estimation, how much would be the value assigning the current innovation to another party in the local market at today's prices, including all its relevant material rights generated in the present and the future?

Inventor's Answers:

Today's price of total assignment could range around:/

9- Expected value in case of exclusive licensing the current innovation:

The license is not a transfer of ownership of invisible assets from one party to another, rather, is just legally leasing its use for limited periods, while retaining the ownership of the technology (invention / design, trademark) in the possession of its owner.

In return for signing the exclusive licensing contract, the licensor obtains material returns in two forms:

First: licensing fee, which is a fee paid for just signing a license agreement, which is a material value that is collected only once from the licensee for being allowed to use, exploit, and generate income from the subject invention within definite area.

Second: royalty payments, which are mainly financial values or fixed sales percentage, that are collected periodically from the licensee, most likely being paid annually or semi-annually.

In your estimation, how much would an exclusive license worth in the local market at today's prices?

Inventor's Answers:

Today's price of exclusive licensing for this invention could range around:/

10- Expected value in the case of a non-exclusive license for the current innovation:

In your estimation, how much would a non-exclusive license for multiple market parties worth at today's prices?

Inventor's Answers:

Today's price of non-exclusive licensing for this invention could range around:/

11- Other assets that feature a value-add:

In your estimation, does the current innovation have any other factors that might add to its market value?

Inventor's Answers:

Yes, for example:



- a- Date of first launching of the commercial establishment for manufacturing the innovative product, or offering the innovative service:
.....
- b- The number of actual workers in the facility, including engineers, technicians, academics, lawyers, etc.:
.....
- c- Higher certificates obtained by the employees of the commercial establishment of the innovator:
.....
- d- Scientific researches published in the names of actual employees at the innovator's commercial establishment, etc.:
.....
- e- Cultural and promotional events, forums and conferences attended on the topic of the current innovative work:
.....
- f- A list of the public figures and/or influencers of the local sovereign bodies who cooperated, supervised or followed up on the success of the innovation process under evaluation (financially or morally):
.....
- g- Other aspects
.....



Economic Questionnaire Estimations

Applying The Cost Approach:

a. **Historical costs:**

(Initial actual costs for developing the idea into a real innovation):

..... EGP

b. **Replication costs:**

(Present-time cost for replicating the innovation with all its R&D steps)

..... EGP

c. **Replacement costs**

(Present-time cost for recreating the innovation with its successful steps only)

..... EGP

* Estimated Average Cost: EGP

Applying The Fair Market Approach:

a- Free Market-Competition price of Actual Rivals/Substitutes /Alternatives:

..... EGP

b- Free Market-Competition price of Potential Rivals/Substitutes /Alternatives:

..... EGP

* Estimated Average of Free-Market-Competition Price: EGP

Applying Income Approach (Discounted Value):

a- Estimated number of years during which the innovative work is supposed to generate revenue: (e.g., 5 years +):

b- Estimate the percentage of the risk factor: *(see table)*.

c- Apply the equation to derive the present value of the expected future income after applying the discount rate:

$$PV = \frac{P_1}{1+r} + \frac{P_2}{(1+r)^2} + \dots + \frac{P_n}{(1+r)^n}$$

Term's interpretation:

PV: present value;

P1: future expected value for year 1; P2: for year 2, etc.

r: risk factor;

n: number of years.



Innovation Life-Span	1 st year 2023	2 nd year 2024	3 rd year 2025	4 th year 2026	5 th year 2027
Future Gross Income	---	---	---	---	---
Total expected income in next 5 years			EGP		
Inflation Rates*	*	*	*	*	*
Av. Interest Rates **	**	**	**	**	**
Estimated Av. Risk	---	---	---	---	---
Present Value	---	---	---	---	---
Today's value of future expected income			EGP		

* Source: <https://www.statista.com/statistics/377354/inflation-rate-in-egypt/>

** Source: <https://tradingeconomics.com/egypt/interest-rate?continent=africa/forecast>

- ❖ The present value of expected future total income (within the next 5 years) after applying the discount rate according to the income approach is around:

..... EGP

Note: This value is a nominal estimation; that is, it does not express the real value, which can be economically calculated after subtracting inflation rate.

"Real value = nominal value – inflation rate"



Applying Hybrid Approach



Embedding Premium Plus +

Income Approach	EGP	Comment:
Cost Approach	EGP	Comment: In general, this is the least amount that the innovation nominal value cannot get beneath.
Market Approach	EGP	Comment:
Premium +	EGP	Comment: e.g., monopoly premium, technology push innovation, a breakthrough invention, etc.

Final estimated economic value of the innovation in Egyptian market (2026)	Selling/Assigning Price: EGP	
Final estimated economic value for licensing the innovation in Egyptian market (2026) (For 5-7 years renewable)	Licensing Fee: EGP	
Royalty Rate (Annually or semi-annually)	Or,	% of gross revenue
		% of net profits



Evaluator's Economic Comments:

[illegible]

Hesham Raouf Mahmoud, M.Sc.

Master's degree of Economics

Economist & Intellectual Property Registered Agent

Founder & Managing Director of *Reyada International*

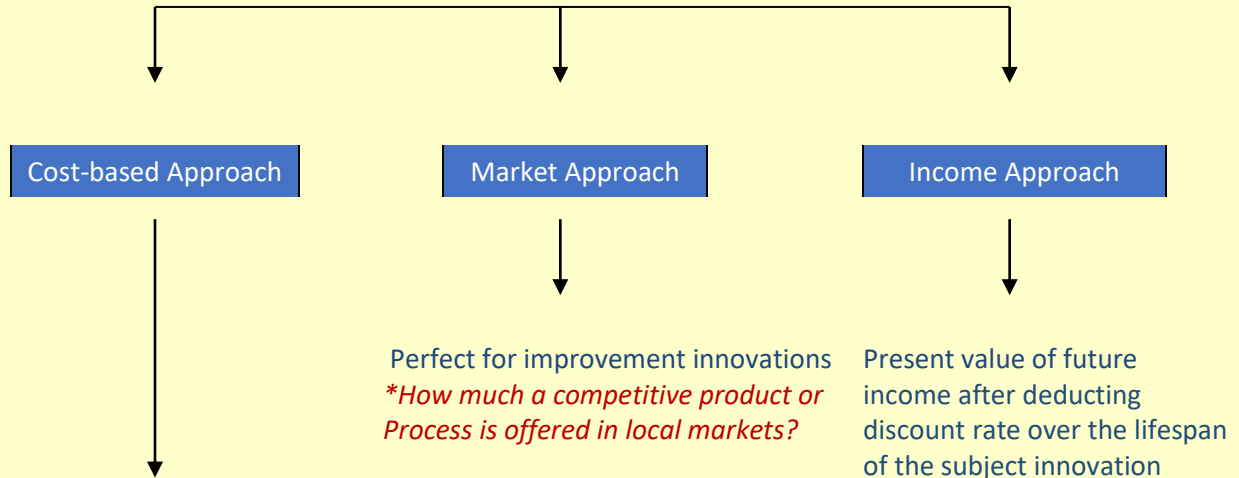
Issued on:

We appreciate ... What you innovate ®



Reyada IP Valuation Strategy

Applying Hybrid Approach



- a- Historical cost Method: *How much did it initially cost?*
- b- Replacement Cost Method: *Present-time cost for recreating the innovation with its successful steps.*
- c- Replication Cost Method: *Present-time cost for replicating the innovation with all its R&D steps.*

IMPORTANT TIPS:

- Intangible asset's valuation is not a precise art, nor a science; rather, a commercial perspective.
- The subject nominal valuation is an objective economic estimate, conducted by Reyada International based on information provided by the applicant.
- Nominal estimation values may differ from one estimator to another based on the economic approach applied. But shall be complying with the worldwide known valuation approaches.



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