

Rui Santo

# THE BALANCE OF INNOVATION<sup>®</sup><sup>©</sup>

How to measure, develop and recognize ideas that will be successful



The balance among bodily efforts, human values and prices

**S.I.T. Institute**

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# Summary

This summary was especially developed to display some important conclusions from each chapter.

This book is dedicated to the managers - professional staff from any sector, level or interest that work with ideas (to be) transformed into innovation – willing to contribute with new perspectives to this activity, essential for everyone.

## S.I.T. - Self-Compared Ideas Theory<sup>®</sup>.

### Mathematical formulation for measurement of ideas.

Now we know that the focus of the ideas for innovation must be dedicated exclusively to the user's physical - biological human body and which efforts embedded in their organism to be measured: *their energy consumption (Kcal), time consumption (second) and movement consumption (meter) to benefit from the idea provided through the innovation.* From this concept, we were able to find the *mathematical formulation* to measure ideas.

The diagram consists of a light blue rectangular box with a dark blue border. Inside the box, the text is arranged vertically. At the top, the equation  $\Sigma Et \times \Sigma Ee \times \Sigma Em = 1.00 \text{ iur}$  is written in dark blue, with a registered trademark symbol (®) and a copyright symbol (©) to its right. Below this, the text "Sense of direction of" is written in dark blue. Underneath that, "Ideas for Innovation<sup>®</sup> ©" is written in dark blue. A large, light blue downward-pointing arrow is positioned to the right of this text, pointing from the top equation to the bottom equation. At the bottom of the box, the equation  $\Sigma Et \times \Sigma Ee \times \Sigma Em = 0.00 \text{ iur}$  is written in dark blue, also with a registered trademark symbol (®) and a copyright symbol (©) to its right. In the bottom right corner of the box, the text "Copyright Rui Santo" is written in a small, dark blue font.

Equation 1 - Essential Mathematical Formulation for Measurement of Ideas

*By definition, the sum of consumed time efforts ( $\Sigma Et$ ), multiplied by the sum of physical efforts - consumed energy ( $\Sigma Ee$ ), multiplied by movement efforts ( $\Sigma Em$ ) is equal to 1.00 iur.*

The sense of direction of ideas for innovation goes from 1.00 to 0.00 iur, i.e., innovation sense goes from full effort (1.00 iur) to no effort (0.00 iur), while maintaining the benefits to the user.

**A product or service is an "Ideal Idea"<sup>®</sup> ©**  
**when benefits are obtained without any**  
**effort (0.00 iur) being required from the user.**

Figure 1 - Description of the Essential Mathematical Formulation.

This is S.I.T's<sup>®</sup> essential equation that allows us to measure ideas.

## **We present *some conclusions* of each chapter.**

### **I. Conclusions of the first chapter**

#### **Preliminary concepts**

1- In this first chapter we became aware of the basic characteristics of *S.I.T.* ©® - *Self-Compared Ideas Theory* ©®, the first logical – mathematical theory for evaluation of ideas.

2- We learned to identify the difference between measuring and counting ideas, the unit of measurement to *QUANTIFY* ideas (IUR), and the mathematical formulation that allows us to calculate ideas through efforts consumed by user's physical - biological human body organism when practicing the innovation, whether current or old.

3- With *S.I.T.* ©®, managers realize that innovations must benefit the user, who has three elements whose consumptions are easily measurable, which are *inextricably non-separable* embedded in their organism: time efforts, energy efforts and movement efforts.

4- We start to understand that the risks of innovation are results (submitted) of the methods used to innovate. When we correct the method of innovation, reduce the risks.

5- The presented method is an "*innovation of rupture in the innovation*". Current methods of evaluation of ideas are subjective - uncertain, i.e., inexact, subject to high risks, vary depending on the analyst, mood, *color of the Moon*, authorship, origin, etc. With the first mathematical method of "*QUANTIFICATION OF IDEAS*", the manager can be supported by numbers and comparisons, regardless of "opinions, personal preferences, internal policies, and unprepared predictors" to choose ideas to be invested in for innovation.

6- The definitions of innovation used here clarify "*who makes what for whom*" and which returns each one expects from the other, i.e., while corporations expect a financial return that compensates their offers, users expect effort saving and more benefits of the same offers that compensate their payments. The definition displays the each one's duty of in the "innovator – user" relationship.



7- While there are a number of innovations of rupture in *S.I.T.* ©®, in this first chapter some of them deserve special attention from the reader. For instance, the concepts of the three efforts inextricably embedded in the user's physical – biological organism. the *Ideal Idea = 0.00 iur*, the *sense of direction of ideas - unique and millennial*, the *safe harbor of ideas* to where all converge since always, the *change of comparison benchmark and the silver bullet of innovation that informs "whether and why" an idea will be successful or not*. *These concepts will be repeated and combined with other that will be presented in the next chapters.*

8- From this first chapter, the reader starts to realize new possibilities of progress in innovation and reduction of risks. Currently, 2016, these risks are in so high levels that doubts are raised on the managers' innovative ability.

Thus, we extend the innovation ability, *mathematically*, with *S.I.T.* ©®.

## **II. Conclusions of the second chapter.**

### **Logical – mathematical methods of evaluation of ideas for innovation**

1- The Principle of Effort Saving (PES), also known as Occam's Razor, has been present in archaeological findings for 3.3 million years. In a similar way, the archaeologists have been unearthing the same mathematical facilitations to the users in sites, whose populations had no contact with devices such as handles, hooks, stairs, windows and others.

2- PES can be understood as a Natural Law, present in our DNA, in such way that we always seek to save our three efforts: energy, time and movement, which are embedded in our physical – biological organism.

*Once a certain level of effort saving in 1.00 iur to 0.00 iur line is reached, we only go back (regress) to previous level due to a compelling reason.*

3- Based on our effort saving, the five methods of measurement of ideas for innovation appear: mathematical method; analytical; appearance / visual; method of values and instrumental method. From now on, we can detail each one of these methods, know and use the creative chances we are offered, multiplying the potential of each procedure.

## **III- Conclusions of the third chapter.**

### **Mathematical Method**

1- There are three important references for the composition of calculation method of ideas for innovation:

- a: user's physical – biological organism, to where all the ideas are sent.
- b: the old innovation, which the user has as reference and will be used for self-comparison in his environment;
- c: the arrow that indicates the sense of direction of the ideas for innovation - unique and millennial, kept for 3.3 million years, in which ideas must be fit as close as possible to the *Ideal Idea = 0.00 iur*.

2- The concept of self-comparison understands the same person in his/her own environment, whichever it is. Only thus can self-comparison make sense, as this is how we compare ourselves with the old innovation and the current one.

3 - The possibility of measuring any innovation in any area with only one unit of measurement (*iur*) extends the picture available to the manager, who has the whole scenario in front of him/her, which is not possible without S.I.T.®

4- In appendix 2, the reader can follow how the manager can get mathematical support and decide on the continuity or not of investments in an idea.

#### **IV- Conclusions of the fourth chapter**

##### **Analytical Method**

1- In this method, there are no “numerical calculations”, but “intuitive calculations”. Two tables are created to evaluate ideas through this method: Table of Human Elements / Factors and Table of Material Elements. The main difference is that now we know that both head to the safe harbor of ideas, i.e., 0.00 iur.

2- In this method, the precision class of intuitive evaluations is not important. It is more important to understand the items composing users' evaluations and add those who are pertinent to the project under development.

3- Having in mind an S.I.T.®'s essential concept – saving of your own efforts, which man has always been seeking - “*appears the concept of dematerializing from the user's point of view - in weight, volume, in consumption through efficiency or any another aspect*”

*that creativity finds - and can really speed up the reduction in the consumption of natural resources*". In other words, this method provides solution for an environmental problem: it enables the measurement of sustainability level of any product.

*THE FARTHER FROM 0.00 IUR, THE MORE UNSUSTAINABLE.*

4- We can use this set of tables to evaluate questions related to "*sustainable innovations*". A new reflection appears to the manager: *should your product receive investments to make it sustainable with the current value in iur or should investments be directed to get as close as possible to 0.00 iur allowed by the state of the art, before making it sustainable?*

5- *In dealing with questions related to save the planet by preventing the consumption of natural resources, this methodology combine user's desire with environmentalists' desire. It is important to note that the dematerialization is occurring in compliance with the Law of User's Effort Saving, with no systematic support from anyone.*

*A question arises: has nature itself taken charge of solving the problem of environment and consumption of natural resources, regardless human beings, and rushing to do it?*

## **V- Conclusions of the fifth chapter.**

### **Visual method**

1- This is the simplest method as the idea is associated to a number in a scalar arrow.

2- The method creates a "*numerical language of ideas*" that helps creative ones to keep a common language of immediate understanding for all and saves explanations on each arising idea - which makes the creative flow in the environment more complicated.

3- The method shows that more cognitive ability will be required from the creative ones to find and provide ideas. However, when and if they succeed, exhausting, insane, and subjective efforts in delaying discussions to prove that idea X is better than idea Y are saved.

4- In this method, as in the others, the manager can decide with mathematical safety, given the extreme simplicity provided by the method – *an arrow graduated in which ideas are placed*. The closer to destination 0.00 iur, the better for the user and greater the success potential of the idea.

5- *The method generates the Periscope of the Future that instigates the manager to move forward to the Immediate Future as an effect of inertia, and nothing more.*

6- The Periscope of the Future can be used by as a compass helping to sail to the safe harbor of ideas, with mathematical certainty, in an environment of uncertainties, sorting jewels from costume jewelry.

7- *Numerical visual method also helps the manager to distinguish S.I.T. ®© from other methods. While some methods aim at “KEEPING MORE OF THE SAME” although in a lean way, as if the world were static, S.I.T. ®© moves forward on the arrow, mathematically, getting closes to value 0.00 iur, in such way that the “NOTHING IS EVERYTHING” desired by the user.*

### UP GRADE

Old: Lean Process = Less is More! = OCCAM’S RAZOR – XIV<sup>th</sup> Century  
New: Ideal Idea (0.00 iur) = Nothing is everything! = S.I.T. ®© – XXI<sup>th</sup> Century

## VI- Conclusions of the sixth chapter.

### Method of Values (human and financial).

1- There are two mathematical formulations to test the ideas. To test the benefits added to the user’s Human Values use the first as “*LITMUS TEST*”, and to test Financial Values use the second as “*FINANCIAL ALARM*” through “potential price”, the risk of financial losses with the idea in design phase.

2- *S.I.T. ®© - Self-Compared Ideas Theory* to evaluate the benefits and prices is based on the balance of necessities from Maslow’s Triangle. Human values are qualification elements. While the benefits contained in each value can be *QUANTIFIED*, as we make it here.

3- In the case of “*LITMUS TEST*”, the manager must pay multiplied attention when the benefit of innovation is *negative*, i.e., *less* than the benefit of user’s reference. The failure probability of this idea is large, despite every case being unique and each one must be dealt separately, including the manager’s appetite for high risks.

4- Virtual values of prices of innovation indicate the trend of acceptance of the idea under design: much greater, greater, equivalent, negative price of innovation. When the trend of prices of innovation present values equivalent or negative compared with prices user's reference, the manager must pay multiplied attention. All "*FINANCIAL ALARMS*" must ring clear and loud. Exist high-risk in this design

5- As odd as it can be, a large amount of innovations that add values to the object, but remove (or keep the same ones) facilitations to the user, increasing their efforts. This design yields a high rate of failure of ideas. They disrespect the essential principle of effort saving and sense of direction of ideas for innovation.

7- This method, as the previous ones, provide practices that give the manager the qualification to safely decide the path to follow from the design of the ideas, *mathematically supported, using data already collected and working with them objectively.*

A difficulty arises here: how to understand the *three* essential and so different elements (physical – biological organism efforts, human values and benefits, resulting prices), with their respective mathematical formulations, acting and influencing, simultaneously, on one another?

The answer is *THE BALANCE OF INNOVATION*<sup>®©</sup>, which names this book, and is presented in the next chapter, in which we can "see physically" mutual influences operating online.

## **VII. Conclusions of the seventh chapter.**

### **Instrumental method**

1- *THE BALANCE OF INNOVATION*<sup>®©</sup> is the first instrument to evaluate ideas destined to be transformed into innovation.

2- It is based on the "rule of 3", a mathematical rule in which there are always two elements balanced by a third one in the opposite position.

3- There is a practice to use the balance, starting from the principle that the markets are stabilized with the items provided. It means products and services are acquired by the users while they expect innovations closer to the safe harbor of ideas, Ideal Idea = 0.00 iur. Although unbeknownst to them, they recognize immediately when they appear.

4- Once the market is steady, manager's function is to destabilize it to favor the user ***and*** the innovative corporation. When the manager is able to save efforts and add benefits to the user, the latter financially repays the corporation by preferring the new product/service.

5- Based on plates movements, the manager now knows on which plate to act (efforts, benefits or prices?), in which sense (raising, keeping or lowering?), and can also see, online, what happens with the other plates when making the alteration he/she has in mind.

6- Movements, relationships, actions and reactions that we can simulate in the balance to define and perfect products and services can be extended to strategies, marketing, production or *any three elements that are interrelated*.

7- *THE BALANCE OF INNOVATION*®© is an indispensable instrument to the manager due to the *visual facilitation* it offers. While we have the mathematical formulations, it is very difficult to imagine these operations and interactions at this first moment, when no “cognitive experience” to these 27 movements that occur simultaneously and consequently. *THE BALANCE OF INNOVATION*®© *transforms the three mathematical formulations into a visible and identifiable three-plate movement, with mutual and consequent influence*.

8- The instrument of evaluation of ideas extends manager's qualification, who can allow himself to decide alone, based on mathematical formulations and interactive movements of plates of *THE BALANCE OF INNOVATION*®© .

9- *THE BALANCE OF INNOVATION*®© is called by students as “Egg of Columbus” or “Gordian Knot of Innovation”, as it solves questions of interaction among three plates, one of which was hidden: efforts of user's physical – biological organism, and extend the perception of professional staff who work with ideas. By unearthing new questions, the scale also offers new solutions.

## **VIII. Conclusions of the eighth chapter.**

### **Management of Ideas for Innovation.**

1- S.I.T. ©® brings radical changes to the management of innovation by modifying the path of management. In the current models, the process used is an incremental innovation or rupture one, which “goes on a pilgrimage” from a start with several items of the past to a point in the future that nobody really knows where it is nor which one it is. *Not to know where to arrive leads us to arrive nowhere*. This finding shows its effect in the high rate of failures of innovations.

2- S.I.T. ©® offers a new path for administrators whose potential of failures and risks is much lower than the traditional method, and might be null.

3- All members of administration team must follow the same compass, i.e., to practice S.I.T. ©® in such way that ideas provided are in the sense of direction and with value in our lower than the current item. This strategy makes leader’s work easier, as he is not required to evaluate what is yielded. Now, everybody knows to where go and which way to sail. This concept is valid for all phases of the process, *with no exception*.

4- With the methods provided, risks are minimal and results can be maximal. The process becomes safer due to the mathematical formulation and the BALANCE OF INNOVATION©®. However, it does not mean the practice ensures success of the idea. There will always be risks.

5- With S.I.T. ©®, new forms of management arise. These forms show that although the idea can be close to 0.00 our, there is only place for the first or two first ones that arrive, i.e., “*The first to arrive eliminates the competition*”. Thus, there is an additional risk for survival of corporations that are unable to enter the new environment, those not acting fast.

6- Management of Ideas (for Innovation) identifies the radical change of innovation that is happening in the world. We are moving **from analog technology – material to digital technology – immaterial**, with the aggravating factor that in the digital scenario, several items can merged into a single object, such as the smartphone.

This phenomenon, that we call “*FUSION IN THE SAME IMMATERIAL*”, has never happened before in the history of humanity. We have no reference for it.

7- The current situation of the innovation in companies can be translated as *if do not innovate, you die, but if you innovate, in up to 96% of the cases, you fail!* Such situation creates a dilemma for the administrator in charge of the implementation of innovation.

S.I.T. ©® comes to offer aid by adding radical options for the administrator to escape from this painful high-risk conjuncture.

8- With the advent of S.I.T. ©®, the methods for selection of ideas eligible to receive investments can change radically. *The level of losses in investments with null return is not required to continue, especially in environments that work with government funds.* By changing the method, benefit investors and authors of ideas. None of them must continue deluded with ideas with no mathematical potential for success.

9- There is a large amount of items that had reached the Ideal Idea. These items had eliminated competitors, taxes, specialized professionals, raw materials, components, involved products and services, etc. This reduction continues. There is a much larger amount of items continues “reducing” their components in diverse ways. For example, in 1891 an electric engine weighed 86Kg per kW. In 2.000, this reduction already was in 4.5kg per kW and not stopped. Thus, dematerialization is continuous and devours everything that constitutes the object, sped up by the user, heading to the safe port, 0.00 iur.

Thank you for being patient in this reading, to arrive so far.

*CREATE = ACTIVATE + THE + MIND*

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