

The Innovation Assessment Framework

We describe in this note Crafitti's Innovation Assessment Framework. This is applicable to all type of organizations and enterprises. Using the metrics defined in this framework, one can gauge the current innovativeness of an organization, team or an individual in the specified interval of time, say the year. The Framework then can be utilized to

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(www.crafitti.com) *Thought Ignition Papers Series (TIPS)* is a crystallization of our research, experiments and experiences to communicate those ideas that ignited deeper and fruitful thoughts which led to successful action. These are our vehicles to co-craft innovation with our clients and partners. We look forward to empowering ideas together.

set up goals for the next time-interval.

Our fundamental definition of innovation in the broadest sense remain, "successful creation of change through ideas"

Secret Input to Innovation – How many Inventive Problems

Our research has shown that key input to innovativeness lies in the relentless pursuit of problems in any organization. How many problems the organization is actively pursuing to solve is the key input for innovativeness. However, we need to assess the type of problems that organization is pursuing. The most important problems for innovativeness are what are called Inventive Problems. This is

as distinct from routine and non-routine problems.

PONs and Problem Typology

Every organization exist to fulfill some **needs** and pursue various **opportunities** that emerge in the world. Even if the organization identify the needs and continuously detect the emerging opportunities, it faces various challenges to meet the needs and/or pursue the opportunities. These challenges typically can result in identification of Problems. **Problems, Opportunities and Needs (PONs)** are an essential input for every organization.

Problems are typically defined as pursuing a wish or a goal. Usually the wishes, goals and objectives are not clearly defined. Second part of a problem are series of **critical steps** that are essential from the current state – the problem state to solution state. *A step is critical if the solver cannot solve the problem without that step.*

Based on Critical Steps and clarity of Goals/Wishes, problems are classified into – **Routine problems, Non-Routine Problems and Inventive Problems.**

Routine problems are those for which solution is known and all critical steps are known. **Non-Routine problems** are those for which solution is known but at least one critical step is missing. **Inventive problems** are those

for which conceptual solution is missing and many critical steps are unknown.

Metric for Innovation Assessment – Inventive Problems Percentage

Every organization is solving problems continuously. We propose the percentage of inventive problems that the organization is pursuing in a time interval, say in a year, as the indicator of its innovativeness. As an example, let the company Alpha, in year 2016 actively pursued 1000 problems and solved 800 in pursuing the needs or opportunities. However, only 30 of those problems were inventive and the company solved only 5 of the 30 inventive problems.

Company: Alpha	Actively Pursued	Solved
	Company Level problems and knowledge	
Inventive Problems	30	5
Non-Routine Problems	100	50
Routine Problems	870	745
Total	1000	800
% of Inventive problems	3	0.63

The Innovativeness Metric for the company is 3% on **active pursued** and 0.63% **solved** as shown above.

However, this picture gives only at the company level. There are two more levels that we consider – the problems at the industry level and problems at global level. Industry level problems are challenges where whole industry is not able to solve or pursuing. Global problems are those that are open problems at the world level, across industries.

Inventive problems pursued and solved in a year at company, industry, and global levels should be included as three metrics to assess the innovativeness of the company.

Year	2016	
Company: Alpha	Actively Pursued	Solved
	Industry level problems and knowledge	
Inventive Problems	5	1
Non-Routine Problems	50	10
Routine Problems	300	200
Total	355	211
% of Inventive problems	1.41	0.47

Year	2016	
Company: Alpha	Actively Pursued	Solved
	Global problems and knowledge	
Inventive Problems	1	0
Non-Routine Problems	5	2
Routine Problems	14	6
Total	20	8
% of Inventive problems	5.00	0.00

As can be seen above the company innovativeness at industry level is 1.41% and 0.47% on active pursued and solved metrics and at global level it is 5% and 0% on pursued and solved levels.

Innovation Assessment Framework and its applications

Focus on Inventive problems being pursued and solved as an indicator of innovativeness is a strong metric and hence the metric and associated guidelines to actively identify and pursue inventive problems gives a strong feedback to pursue innovative problems. In fact this can help create well-defined roadmaps to pursue and measure the improvement compared to being in the routine problem solving that most companies are continuously spending their time and effort.

About the author



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