

IDEA GENERATION

Stage #1: Generation

For a lot of companies, making use of ideation to address a specific problem or requirement is frequently a good starting point. The majority of companies can easily identify these kinds of needs – the main decision is whether they contribute to an ideation approach. After problem-solving, come two other key chances for utilizing ideation: core competencies and consumer insights.

Core competencies, in reference to ideation, have to do with leveraging ideation to develop upon a company's abilities. In this kind of ideation, the organization is looking for fresh applications or new markets for existing services/products.

Consumer insights, with reference to ideation, have to do with utilizing principles of conventional market research (for example: focus groups and surveys) and implementing them in the context of a joint idea-sharing milieu. Surveys are effective though there are a few drawbacks: respondents would not be able to view other replies (to vote up/down or comment) and the response rates are usually pretty low. Even focus groups are effective though they fail to reach the heights of online ideation owing to factors such as price constraints that hinder them from accessing a bigger participant pool.

Stage #2: Selection

Picking the best ideas for an online business starts much before the beginning of the ideation process. It is essential that you fix the criteria by which the ideas are to be assessed, who would be responsible for evaluating the ideas, and how the top ideas would be given to the concerned internal teams for further assessment or execution. A proper selection process begins with the use of tags or labels to arrange the ideas into meaningful clusters. An example would be labels being arranged along product lines (such as phone, laptop, tablet) and tags being a level lower, concentrating on attributes (easy navigation, portable, long battery life, lightweight) and/or on features (display, operating system, interface). Labelling and tagging should be followed by prioritization to be certain that the most essential ideas reach the stage of application/execution.

Stage #3: Implementation

The success of implementation is dependent on an organization's ability to choose the top ideas and take action based on them. It also depends on the organization having appropriate workflows in place so that the right groups take part at the appropriate time in the three steps of the ideation process. The makeup of these workflows (that call out particular roles and aspects of responsibility) is very essential for organizations if they are to start any ideation endeavour. The people in the roles called out should be ready to take in new ideas that don't come from within the company and possibly can be incentivized or otherwise acknowledged for their readiness to implement the new approach.

IDEA GENERATION TECHNIQUES

1. SCAMPER

SCAMPER is an idea generation technique that utilizes action verbs as stimuli. It is a well-known kind of checklist developed by Bob Eberle that assists the person in coming up with ideas either for modifications that can be made on an existing product or for making a new product. SCAMPER is an acronym with each letter standing for an action verb which in turn stands for a prompt for creative ideas.

- **S** – Substitute
- **C** – Combine
- **A** – Adapt
- **M** – Modify
- **P** – Put to another use
- **E** – Eliminate
- **R** – Reverse

2. Brainstorming

This process involves engendering a huge number of solutions for a specific problem (idea) with emphasis being on the number of ideas. In the course of brainstorming, there is no assessment of ideas. So, people can speak out their ideas freely without fear of criticism. Even bizarre/strange ideas are accepted with open hands. In fact, the crazier the idea, the better. Taming down is easier than thinking up.

Frequently, ideas are blended to create one good idea as indicated by the slogan “1+1=3.” Brainstorming can be done both individually and in groups. The typical brainstorming group comprises six to ten people.

3. Mind mapping

Mind mapping is a graphical technique for imagining connections between various pieces of information or ideas. Each fact or idea is written down and then connected by curves or lines to its minor or major (previous or following) fact or idea, thus building a web of relationships. It was Tony Buzan, a UK researcher, who developed the technique “mind mapping” discussed in his book ‘Use your Head’ (1972). Mind mapping is utilized in brainstorming, project planning, problem solving and note taking. As is the case with other mapping methods, the intention behind brain mapping too is to capture attention and to gain and frame information to enable sharing of concepts and ideas.

To get started with mind mapping, the participant just has to write a key phrase or word in the middle of the page. Then, he must write anything else that comes to his mind on the very same page. After that, he must try to make connections as mentioned in the previous paragraph.

4. Synectic’s

Synectic’s is a creative idea generation and problem-solving technique that arouses thought processes that the subject may not be aware of. It is a manner of approaching problem-

solving and creativity in a rational manner. The credit for coming up with the technique which had its beginning in the Arthur D. Little Invention Design Unit, goes to William J.J. Gordon and George M. Prince.

The Synectic's study endeavoured to investigate the creative process while it is in progress. According to J.J Gordon, three key assumptions are associated with Synectic's research.

- It is possible to describe and teach the creative process
- Invention processes in sciences and the arts are analogous and triggered by the very same "psychic" processes
- Group and individual creativity are analogous

5. Storyboarding

Storyboarding has to do with developing a visual story to explain or explore. Storyboards can help creative people represent information they gained during research. Pictures, quotes from the user, and other pertinent information are fixed on cork board, or any comparable surface, to stand for a scenario and to assist with comprehending the relationships between various ideas.

6. Role playing

In the role-playing technique, each participant can take on a personality or role different from his own. As the technique is fun, it can help people reduce their inhibitions and come out with unexpected ideas.

7. Attribute listing

Attribute listing is an analytical approach to recognize new forms of a system or product by identifying/recognizing areas of improvement. To figure out how to enhance a particular product, it is broken into parts, physical features of each component are noted, and all functions of each component are explained and studied to see whether any change or recombination would damage or improve the product.

8. Visualization and visual prompts

Visualization is about thinking of challenges visually so as to better comprehend the issue. It is a process of incubation and illumination where the participant takes a break from the problem at hand and concentrates on something wholly different while his mind subconsciously continues to work on the idea. This grows into a phase of illumination where the participant suddenly gets a diversity of solutions and he rapidly writes them down, thereby creating fresh parallel lines of thought.

Picture prompts help a lot when it comes to enabling one's brain to establish connections. These prompts can help to surface emotions, feelings and intuitions. This makes them particularly useful for brainstorming solutions to innovative challenges involving people, and issues with a deep psychological or emotional root cause.

To get started with using picture prompts, the facilitator distributes a set of pre-selected images – each participant gets one. He also asks the participants to write down whatever ideas come to their mind when they look at the image in their possession. According to Bryan Mattimore (presently co-founder of The Growth Engine Company), the images should be visually interesting, portraying a multiplicity of subject matter and must depict people in lots of varied kinds of relationships and interactions with other people.

After this, participants pair off and use additional time, sharing and talking about the ideas they have come up with and brainstorming more solutions to the existing problem/challenge. Lastly, the various pairs present their ideas to the rest of the group.

Mattimore suggests tailoring the visuals to the character of the challenge the participants have to solve. So, if the challenge pertains to the manufacturing industry, you could consider having images of an industrial nature. However, you should definitely include some irrelevant or random images as well because it may be these kinds of images that trigger the most innovative solutions.

9. Morphological analysis

Morphological analysis has to do with recognizing the structural aspects of a problem and studying the relationships among them. For example: Imagine the problem is transporting an object from one place to another by way of a powered vehicle. The significant dimensions are: the kind of vehicle (cart, sling, bed, chair); the power source (internal-combustion engine, pressed air, electric motor); and the medium (air, hard surface, rails, rollers, oil, water). Thus, a cart-kind of vehicle moving over rough services with an internal-combustion engine to power it is the automobile. The expectation is that it would be possible to determine some novel combinations.

10. Forced relationships

It is an easy technique involving the joining of totally different ideas to come up with a fresh idea. Though the solution may not be strictly unique, it frequently results in an assortment of combinations that are often useful. A lot of products we see today are the output of forced relationships (such as a digital watch that also has a calculator, musical birthday cards and Swiss army knife). Most of these ideas may not be revolutionary discoveries but they are still advantageous products and usually have a prospective market in society. Robert Olson provided an example for forced analogy in his book ‘The Art of Creative Thinking.’ He compares different aspects of a corporate organization structure to the structure of a matchbox.

11. Daydreaming

Though mostly not met with approval, daydreaming is truly one of the most fundamental ways to trigger great ideas. The word “daydream” itself involuntarily triggers an uninhibited and playful thought process, incorporating the participant’s creativity and resourcefulness to play around with the present problem. It enables a person to establish an emotional connection with the problem, which is beneficial in terms of coming up with a wonderful idea. The focus of productive daydreaming is a particular goal irrespective of whether it seems to be an impractical task. Plenty of famous inventors have engaged in daydreaming in the past, thereby setting off ideas that contributed to life altering inventions. The airplane is

the most notable example for this. If the Wright brothers had not let their imagination run wild thinking about flight, we would probably still be traveling by ferry.

12. Reverse thinking

As the term ‘reverse thinking’ itself suggests, instead of adopting the logical, normal manner of looking at a challenge, you reverse it and think about opposite ideas. For example: ‘how can I double my fan base?’ can change into ‘how do I make sure I have no fans at all?’ You may notice that the majority of participants would find it easier to produce ideas for the ‘negative challenge’ simply because it is much more fun. However, don’t spend too much time on the reverse idea-generation – about 10 to 15 wrong ideas is fine. After one session is over, you can either continue in the reverse idea atmosphere with a new challenge or else do the reversal once more to make it stronger. An example for the latter is “I am never going to update any of my social networks” changing into “I am going to always update all of my social networks.”

13. Questioning assumptions

The majority of industries have an orthodoxy – unspoken but deeply-held beliefs that everyone stands by for getting things done. Sadly, they fail to realize that by questioning assumptions at every step of service or product development, they can actually enable the birth of fresh possibilities and ideas.

Here’s how Mattimore suggests one go about questioning assumptions: The participants should start by settling on the framework for the creative challenge. After this, they should produce 20 to 30 assumptions (irrespective of whether they are true or false). The next step is to select several assumptions from the many generated, and utilize them as idea triggers and thought starters to engender fresh ideas.

14. Accidental genius

Accidental genius is a relatively new technique that utilizes writing to trigger the best ideas, content and insight.

15. Brainwriting

Brainwriting is easy. Instead of asking the participants to shout out ideas, they are told to pen down their ideas pertaining to a specific problem or question on sheets of paper, for a small number of minutes. After that, each participant can pass their ideas over to someone else. This someone else reads the ideas on the paper and adds some new ones. Following another few minutes, the individual participants are again made to pass their papers to someone else and so the process continues. After about 15 minutes, you or someone else can collect the sheets from them and post them for instant discussion.

16. Wishing

This technique can be begun by asking for the unattainable and then brainstorming ideas to make it or at least an approximation of it, a reality. Start by making the wishes tangible. There should be collaboration among the members of the team to produce 20 to 30 wishes

pertaining to your business. Everyone's imagination should be encouraged to run wild – the more bizarre the idea, the better. There should be no restrictions on thinking.

The next step is concentrating on a number of these unattainable wishes and utilizing them as creative stimuli to trigger ideas that are new but more practical. Mattimore suggests getting the team to challenge the problem from diverse perspectives (imagine how a person from another planet or from another industry or profession would view it) or reflect on it. This type of role playing assists with moving away from conventional thinking patterns to see fresh possibilities.

17. Socializing

If employees only hang around with colleagues and friends, they could find themselves in a thinking rut. Let them utilize all those LinkedIn connections to begin some fantastic conversations. Refreshing perspectives will assist with bringing out new thinking and probably, one or two lightning bolts. Socializing in the context of ideation can also be about talking to others on topics that have nothing whatsoever to do with the present problem.

18. Collaboration

As the term indicates, collaboration is about two or more people joining hands in working for a common goal. Designers frequently work in groups and engage in collaborative creation in the course of the whole creative process.

Given our focus on the use of idea generation in innovation, our metric for the effectiveness of the process is the quality of the ideas selected as the best. Building on prior work on innovation tournaments and on extreme value theory applied to innovation, we articulate a theory that combines the effects of four variables on the quality of the best idea:

- (1) the average quality of ideas,
- (2) the number of ideas generated,
- (3) the variance in the quality of ideas, and
- (4) the ability to discern the best ideas.

Each of these variables affects the quality of the best ideas produced by a team or by a group employing the hybrid process. We report on a laboratory experiment that compares the two idea generation processes with respect to each of these four variables individually and that measures their collective impact on the quality of the best idea. An accurate measurement of idea quality is central to our work. While most prior research has relied on the subjective evaluation of idea quality by one or two research assistants, we use two alternative approaches: a web-based quality evaluation tool that collects dozens of ratings per idea and a purchase intent survey that captures dozens of consumer opinions about their intention to purchase a product based on the idea. Our framework, with its emphasis on the importance of the best idea, and our novel experimental set-up let us make the following three contributions.

In fact, we find that ideas that build on a previous idea are worse not better, on average.

Hypothesis: The number of distinct ideas generated (per person per unit time) in the hybrid process is higher than the number of distinct ideas generated in the team process. Variance in Quality of Ideas: The effect of collaborative convergence in teams and interactive build-up work to make the quality of ideas more similar, whereas the increased risks of knowledge component incompatibility lead to higher quality variance. The net effect of these phenomena will depend on their relative magnitudes. To the best of our knowledge, previous research does not provide any strong prescriptions on this, so we pose the null hypothesis:

Hypothesis: The variance in quality of ideas in the team and hybrid processes will be the same. Build-Up of Ideas in Teams: We have argued that teams are more likely to build on previously mentioned ideas. Further, we argued that this build-up has a positive effect on quality and will tend to increase the number of ideas generated. Since our experimental set-up allows us to measure the extent to which a group builds on previous ideas, we can test the indirect effect of choice of organizational process on the quality, variance, and number of ideas. Note that these effects are indirect, because for example, the choice of organizational form may directly affect idea quantity but may also have an effect through its role in contributing to build-up. These effects are reflected in these three related hypotheses.

The Idea Selection Step.

In the idea selection step, the group evaluates and selects the most promising ideas from those originally generated. Since an objective measure of quality is typically not possible; organizational units usually build a subjective estimate of the future potential of each idea and use that to construct relative preferences. These estimates may or may not correlate well with the —true quality of an idea. A process that provides a more accurate measure of the relatively quality of different ideas on average should lead to the selection of higher quality ideas. As an extreme example consider two organizational processes—one that can perfectly discern the true quality of the ideas, and one that has no ability to distinguish between ideas of different quality. When presented with identical pools of ideas, the first process will select the true best subset of ideas. The second process on the other hand will select a random subset from the original pool. On average, the quality of the random subset will be inferior to the quality of the true best subset of ideas. For an organization interested in the quality of the best identified ideas, the fidelity of the evaluation process it employs is thus crucial. From a statistical perspective we know that a process that has access to more independent, unbiased estimates of quality will be able to construct more accurate estimates of quality. There are two potential sources of bias and interdependence in the idea generation and selection process. First, if the same unit that created the idea is also asked to evaluate the idea, this unit may be biased in favour of its own ideas. Furthermore, ideas that for one reason or another garnered discussion time in the creation phase are made salient and therefore most likely to be perceived as high quality by the team members. These sources of bias are more prevalent in the team process than in the hybrid process. This is because in the hybrid process, the majority of ideas are likely to have been created during the individual phase and then evaluated by others in the group phase, reflecting independence between creators and evaluators.

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