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Process Innovation

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Beyond SWOT And Towards Change

Part 6 in a series on P-TRIZ

As every process change practitioner knows, simple business tools catch on. Who hasn't heard of a SWOT chart – strengths, weaknesses, opportunities, threats? On the other hand how many business people know how to perform a SWOT analysis effectively? Drawing a SWOT chart might look easy, but solving the problem it represents is far from trivial. Many of us use the simple SWOT framework and hardly ever stop to think about what the structure of the chart really means. It is all too easy to fall into the trap of considering our work done if we can get the team members to agree on what to write in the four boxes! Unfortunately, the process often ends there. In this article, I'll show how to go beyond a simplistic SWOT analysis and move on towards an actionable implementation strategy.

The proverbial "two-by-two" SWOT chart is much favoured by management consultants. Used in a business context it helps carve a sustainable niche in your market. It is claimed that a SWOT analysis can assess:

- A company (its position in the market, commercial viability, etc.)
- A method of sales distribution
- A product or brand
- A business idea
- A strategic option, such as entering a new market or launching a new product
- A opportunity to make an acquisition
- A potential partnership
- Changing a supplier
- Outsourcing a service, activity or resource
- An investment opportunity

Advocates claim that a SWOT chart can help to uncover opportunities that your company is well placed to take advantage of. And by understanding your weaknesses, a company can manage and eliminate threats that would otherwise catch it unawares. By examining your company and your competitors through the lens of a SWOT, it is claimed, business leaders can craft a strategy that helps distinguish a company from competitors. But is it really that simple?

One problem is that those who come to meetings with nothing more than the SWOT to support their work tend to claim that just by carrying out the procedure will "automagically" pinpoint what needs to be done and put related problems into perspective. In fact, the hard work usually starts after the chart is drawn.

Answers to deep seated business problems are unlikely to emerge just through the act of drawing the chart. The chart should not be the object of the exercise. All too often, charts are left on the

shelf after meetings, with no idea of how to move forward once the pretty picture has been agreed.

Another problem with SWOT lies in its flexibility. For example: why not SWOT from the perspective of a competitor? Could this reveal how they think and provide ideas for how to compete against them? SWOT away, you'll end up creating a lot of charts. What do they all mean? How can we bring all these perspectives together in a single innovation model?

You Need To Know The Answer Beforehand

Throwing SWOT techniques into a group unfamiliar with the logic of the tool is unlikely to reveal anything other than rather obvious statements. Teams normally need guidance.

There is no end of advice on how to fill out a SWOT chart. Some of this is trivial. Other advice is more sophisticated. Even the simplest of advice can help. For example, there is no point listing an opportunity (O) if the same opportunity is available to competitors. Likewise, it is futile to state you have strengths (S) if your competitors enjoy the same benefits.

Real answers don't come easily. Many factors can debilitate a SWOT workshop. For example, there may be internal political factors preventing team members from contributing. A team unable to communicate its strengths over the competition is embarrassing.

Intelligent use the SWOT tool requires training and experience. Because teams find it hard to work and think along structured lines, "facilitators" are often employed in workshops. They employ many aids to creativity. If they encounter mental blocks in the team, blank stares or other forms of psychological inertia, a good facilitator will introduce check lists in order to prompt thinking. The best facilitators come pre-armed with targeted and relevant checklist items. They will know when to throw check list items into the conversation. For example, when considering threats (T), a trained facilitator will prompt the team to think about:

- Political effects
- Legislative effects
- Environmental effects
- IT developments
- Competitor intentions - various
- Market demand
- New technologies, services, ideas
- Vital contracts and partners
- Sustaining internal capabilities
- Obstacles faced
- Insurmountable weaknesses
- Loss of key staff
- Sustainable financial backing
- Economy - home, abroad
- Seasonality, weather effects

Lists such as these are no doubt helpful as memory aids. Yet beyond prompting, neither the facilitator nor the chart itself can provide any answers. The content must come from the team.

Every SWOT Is A Problem

Have you ever thought about what a SWOT chart really is? It is more just four boxes on a page. Each box relates to the other. When developing a SWOT you are developing a statement about a problem. Think about it. Opportunities are problems. The problem is how to exploit those opportunities. Weaknesses are also problems. They must be overcome lest they prevent you

exploiting your strengths in the pursuit of the opportunities. Threats are problems, which could jeopardize capitalizing on strengths. Every SWOT chart is a conundrum and this is why many SWOT charts sit on shelves with the problem unsolved. Rarely if ever does a company develop a comprehensive strategy for dealing with the outcome of a SWOT workshop.

Systematic innovation and problem-solving processes like P-TRIZ can move us beyond the basic SWOT to provide a comprehensive approach to mobilizing a strategy for action. To get from SWOT to process change requires a comprehensive process.

What A SWOT Really Is

If a SWOT is a problem, then the elements of the SWOT are the factors that combine to create the knot that the company wishes to solve. Here is one TRIZ model of a SWOT:

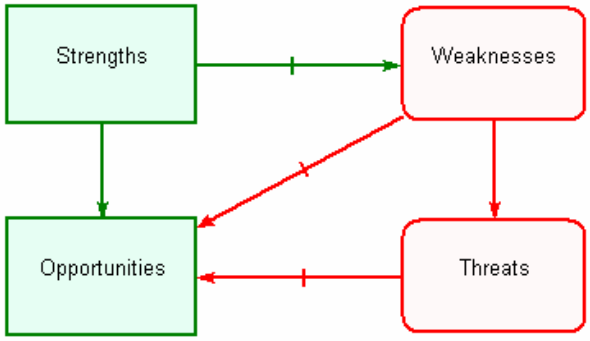

Figure 1 – A TRIZ model of a SWOT chart

The model says: Strengths counteract weaknesses and also create opportunities. Weaknesses counteract opportunities and also create threats. In turn, threats counteract opportunities.

Now that we understand what a SWOT really is, TRIZ is able to use the model to generate strategies for solving the problem:

1. Find an alternative way to obtain [the] (Strengths) that offers the following: provides or enhances [the] (Opportunities), eliminates, reduces, or prevents [the] (Weaknesses).

2. Find a way to eliminate, reduce, or prevent [the] (Weaknesses) in order to avoid [the] (Threats).

3. Find an alternative way to obtain [the] (Opportunities) that offers the following: does not require [the] (Strengths), is not influenced by [the] (Weaknesses) and (Threats).

4. Find a way to protect [the] (Opportunities) from the harmful influence of [the] (Weaknesses) and (Threats).

5. Consider replacing the entire system with an alternative one that will provide [the] (Opportunities).

6. Find a way to eliminate, reduce, or prevent [the] (Threats) under the conditions of [the] (Weaknesses).

Etc.

Read each in turn and you'll see that they are indeed distinctive ways of tackling the problem. TRIZ can also generate useful compromise solutions, such as:

1.1. Find a way to increase the effectiveness of [the] (Strengths).

1.2. Find additional benefits from [the] (Strengths).

1.3. Find a way to obtain [the] (Opportunities) without the use of [the] (Strengths).

1.4. Try to increase the effectiveness of the action of [the] (Strengths) toward reducing the harmful nature of [the] (Weaknesses).

1.5. Consider modifying or influencing [the] (Weaknesses) to improve its being eliminated, reduced, or prevented by [the] (Strengths).

2.1. Find a way to benefit from [the] (Weaknesses).

2.2. Find a way to decrease the ability of [the] (Weaknesses) to cause [the] (Threats).

3.1. Find a way to increase the effectiveness of [the] (Opportunities).

3.2. Find additional benefits from [the] (Opportunities).

4.1. Try to compensate for the harmful influence of [the] (Weaknesses) and (Threats) towards [the] (Opportunities).

4.2. Try to reduce the sensitivity of [the] (Opportunities) to the harmful influence of [the] (Weaknesses) and (Threats).

5.1. Consider transition to the next generation of the system that provides [the] (Opportunities), but which will not have the existing problem.

5.2. Consider enhancing the current means by which the primary useful function is achieved, to the extent that the benefits will override the primary problem.

5.3. Consider giving up the primary useful function to avoid the primary problem.

6.1. Find a way to benefit from [the] (Threats).

In P-TRIZ, each of these problem-solving directions is associated with problem-solving strategies. For example, in response to "1.2 Find additional benefits from [the] (strengths)" TRIZ will suggest the following:

"Most existing systems carry some amount of redundancy – that is, they possess unutilized resources. As a result, a system created to perform a certain function can perform additional functions as well. For example, the airflow from a vacuum cleaner can be used to deodorize and/or disinfect the air. Similarly, a vacuum cleaner can be used to catch flies and other insects. To find ways that an existing system or system element might be utilized for some additional purpose, consider the following:

- Identify the currently-implemented function(s) of a system or system element
- Specify the action(s) currently performed by the system
- Specify the components responsible for performing these actions
- Identify the component properties that allow these actions to be performed
- Think of other ways that these actions and/or properties might be utilized"

TRIZ goes beyond the pre-prepared lists of SWOT facilitators. The directions generated by TRIZ are a powerful stimulus to creativity and solution development.

TRIZ For SWOT

The problem with every SWOT chart is that the relationships of the strengths, weaknesses, opportunities, and threats are rarely identified.

Let's take an example of a business-to-business manufacturing company.

The company has, in the past, relied on distributors to take its products to the end users. The opportunity, and therefore the subject of SWOT analysis, is for the company to build its own distribution network for certain market segments. Here is the SWOT the team developed for this problem:

Strengths	**Weaknesses**
• End-user sales control and direction • Right products, quality and reliability • Superior product performance versus competitors • Better product life and durability • Spare manufacturing capacity • Some staff have experience of end-user sector • Have customer lists • Direct delivery capability • Product innovations ongoing • Can serve from existing sites • Products have required accreditations • Processes and IT should cope • Management is committed and confident	• Customer lists not tested • Some gaps in range for certain sectors • We would be a small player • No direct marketing experience • We cannot supply end-users abroad • Need more sales people • Limited budget • No pilot or trial done yet • Don't have a detailed plan yet • Delivery-staff need training • Customer service staff need training • Processes and systems, etc • Management cover insufficient
Opportunities	**Threats**
• Could develop new products • Local competitors have poor products • Profit margins will be good • End-users respond to new ideas • Could extend to overseas • New specialist applications • Can surprise competitors • Support core business economies • Could seek better supplier deals	• Legislation could impact • Environmental effects would favor larger competitors • Existing core business distribution risk • Market demand very seasonal • Retention of key staff critical • Could distract from core business • Possible negative publicity • Vulnerable to reactive attack by major competitors

Table 1 – Example of a SWOT chart

No doubt the checklists used by the facilitator helped in developing this chart. Yet the chart has a problem, a problem common to all such charts. It is difficult to see what to do next. There are between ten to twenty items listed under each heading. How do they impact one another? We know that weaknesses counteract strengths and opportunities, but in a standard chart, each of the strengths, and each of the weaknesses are lumped together in the two-by-two matrix. This makes it impossible to see the wood for the trees. We simply have no idea, from the SWOT itself, for how to move forward. For example, one of the strengths listed is 'Some staff have experience

of end-user sector.' How exactly does that help? It clearly has some relationship to other items in the chart, for example:

'Staff with experience of end-user sector' may be able to counteract some of the weaknesses identified, such as 'customers lists not tested' and a 'need for more sales people'. Perhaps there are other connections. Could it be that the 'staff with experience of the end-user sector' could train the 'delivery staff' noted as a weakness?

The same principle can be extended to look at other dimensions of the problem. Could the 'staff with end-user experience' help in the innovation process to 'develop products for this sector,' which is one of the opportunities listed? Could they provide information to manage the 'seasonal variations' noted as a threat? The problem is complex and the number of permutations is large. Each of the entries in the two-by-two matrix could impact any of the other entries. Herein is the main weakness of a SWOT. The chart gives no insight into relationships between factors in the environment that give rise to the opportunities, and which, if not solved, will limit the ability of the company to exploit the opportunities. What's needed is not so much a list of items under each heading, but rather, a cause-effect model of why these items are strengths, opportunities, weaknesses and threats.

SWOT Is Not So Useful

We can now see the primary value of a SWOT analysis. Bluntly, it is not much more than four headings under which to list useful or harmful factors in the business.

Simply listing strengths and threats is not enough. We need to know why each of the strengths exists and what effects it can have on other aspects of the business. In a similar vane we need to know how a threat arose and what its future impact will be. Unless we can understand the relationship between these elements, how one impacts the other, how they arise, etc., we stand no chance of moving forward to solve the problem. If all we are given is four lists, very little progress can be made. By contrast, using a cause-effect model, we can generate an execution strategy. We need a cause-effect model, not a list on a two-by-two chart. The real works begins almost immediately.

TRIZ teaches us that everything is both useful and harmful. Indeed, that's the motivation for the development of any SWOT. In the example, the company is exploring the opportunity to create a direct to end user business. As they note, this has some benefits, but also some downside. The company wishes to maximise the upside and minimise the downside. That's the problem they are trying to solve, and its how all TRIZ modeling views the world.

How should we go about developing the cause-effect model required? It would be better if we started using TRIZ from the outset. Experience has shown that it is no more difficult than developing a SWOT chart, just a lot more useful. But it is also possible to develop a TRIZ model from an existing SWOT chart. The simplest way is just to assign each of the SWOT elements to a TRIZ function as follows:

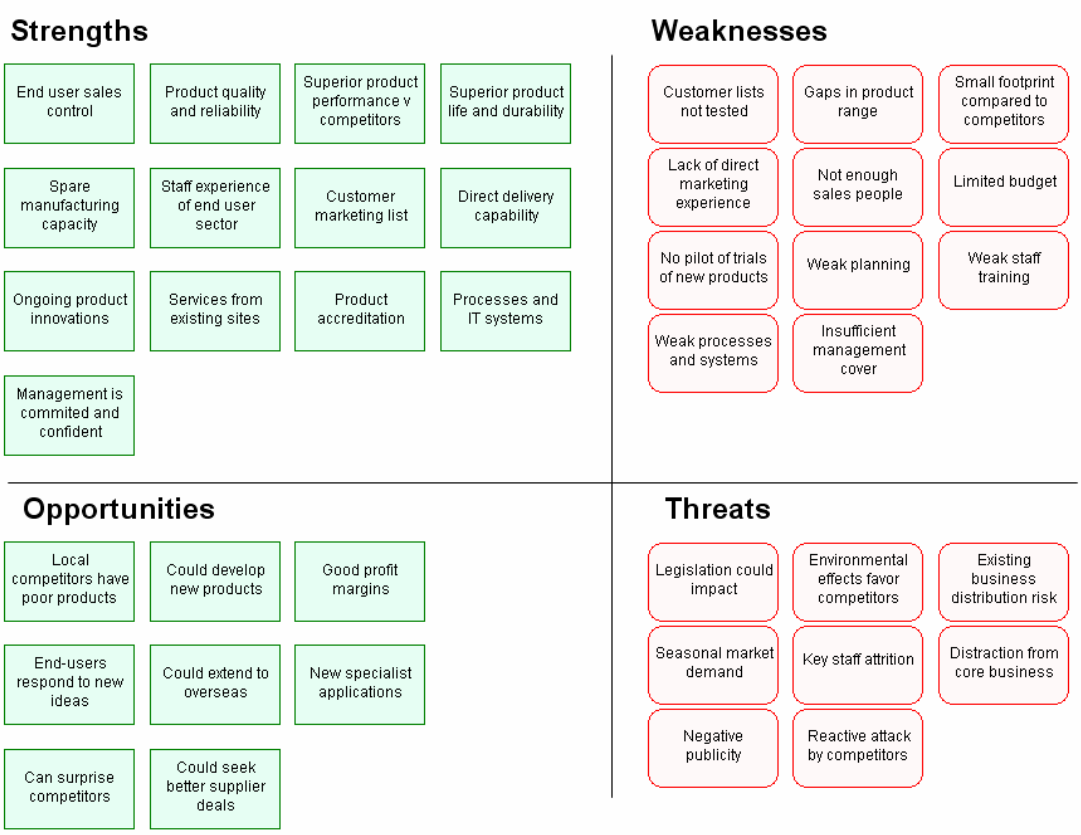

Figure 2 - TRIZ functions corresponding to the SWOT

Now we can clearly see the problem of a SWOT. Lacking relationships between the TRIZ functions the problem cannot be solved. Can we now add the relationships? It's hard to know where to start. If this were real life we'd have access to the team members that developed the SWOT and we could question them. But I don't have that luxury. So what I present next is my best guess at what the company was struggling with in its opportunity analysis for the logistics service. There are clues.

Let's add in some of the relationships and see what happens. The strength 'management is committed and confident' must surely counteract the weakness 'insufficient management cover.' The weakness of 'customers lists not tested' must surely counteract the strength of 'customer marketing list.' The strength of 'product accreditation' must surely counteract 'legislation could impact.' And again, surely 'local competitors have poor products' must counteract 'small footprint compared to competitors.' Here is an updated model with those cause-effect links added:

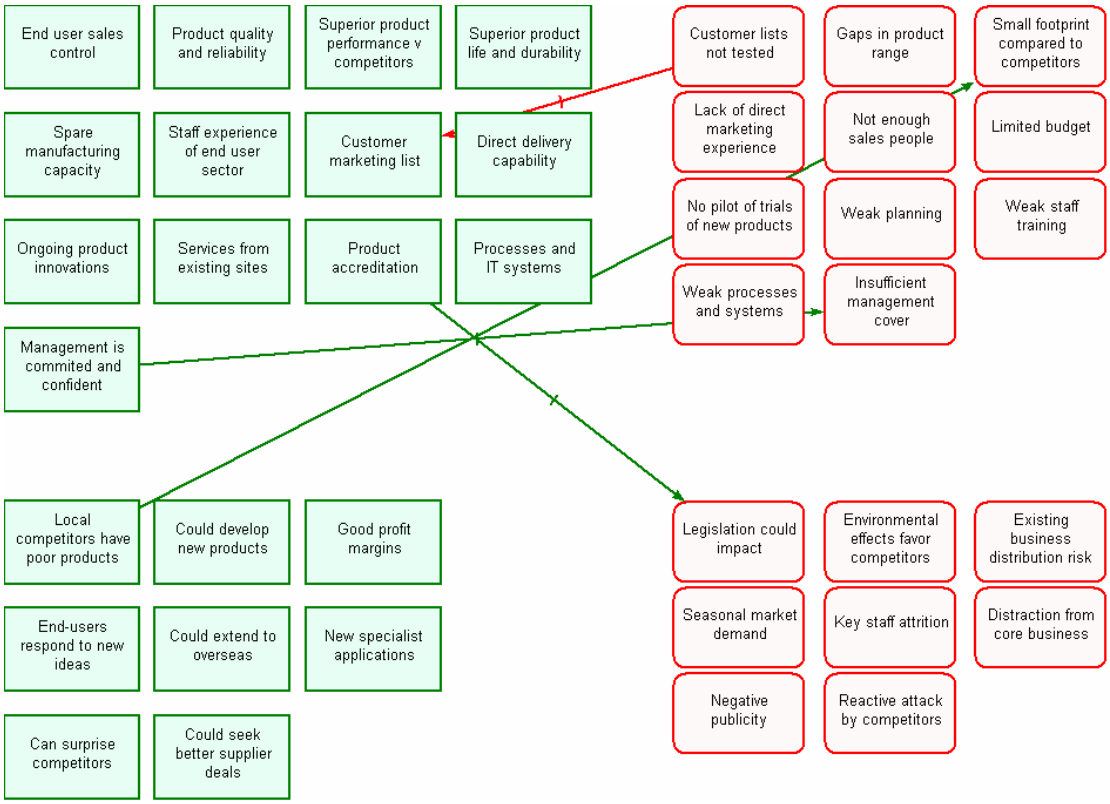

Figure 3 – TRIZ-SWOT model with subset of causal links

Can you see what has happened? We have linked obvious opposing forces. This is almost always an indicator of a poor SWOT chart and a sure sign of weak thinking on behalf of the team. Anyone who has been in a SWOT workshop will have observed this behavior. Someone shouts out a strength and someone else shouts out the opposite weakness. Someone shouts out an opportunity and someone else shouts out the corresponding threat. It is as if the team members are looking at the same resource but from different perspectives – useful or harmful. The team is not problem solving. They are not identifying the contradictions that give rise to these different views. What can be done?

Even with poor data, TRIZ can help move us in the right direction. Here is a subset of the directions generated from figure 3:

35. Find a way to protect [the] (Customer marketing list) from the harmful influence of [the] (Customer lists not tested).

35.1. Try to compensate for the harmful influence of [the] (Customer lists not tested) towards [the] (Customer marketing list).

35.2. Try to reduce the sensitivity of [the] (Customer marketing list) to the harmful influence of [the] (Customer lists not tested).

42. Find an alternative way to obtain [the] (Management is committed and confident) that eliminates, reduces, or prevents [the] (Insufficient management cover).

42.1. Find a way to increase the effectiveness of [the] (Management is committed and confident).

42.2. Find additional benefits from [the] (Management is committed and confident).

42.3. Try to increase the effectiveness of the action of [the] (Management is committed and confident) toward reducing the harmful nature of [the] (Insufficient management cover).

42.4. Consider modifying or influencing [the] (Insufficient management cover) to improve its being eliminated, reduced, or prevented by [the] (Management is committed and confident).

Even these basic directions may help us solve problems. For example, in response to direction 42.4 TRIZ suggests:

"Increasing the receptiveness of a harmful factor to an "eliminating effort" might simplify the situation. For example, it is difficult to remove a nail from a wall by pulling on it because friction hinders its removal. But shake the nail loose and the friction is reduced – the nail becomes more sensitive to the pulling influence."

Does this solution analogy suggest a concrete solution to you? Perhaps a delegation of the senior management team that is so 'committed to and confident about the change' should be shaken free of head office and sent to the local market office to help bolster the 'insufficient management cover.'

Beyond Simplistic Analysis

To gain further insight into the management commitment problem would require more analysis. The same is true of other aspects of this SWOT. The company's processes and IT systems are described as one of its strengths and also as one of its weaknesses. What does this imply? Perhaps there is something wrong with the processes and systems? Perhaps they are inflexible and need to be localized and customized for the new end market? Perhaps this would require a lot of work? Companies often fail to design business processes for reuse. At the same time, companies often use strong processes to enter new markets. How can both be achieved?

The presence of a pair of opposing forces in a SWOT is often an indicator of a deeper contradiction:

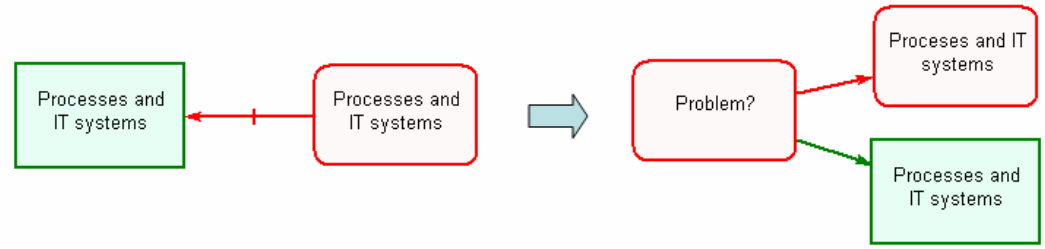

Figure 4 – Opposing forces indicate a deeper contradiction

If the processes and systems are both useful and harmful, what aspect of their design has led to this? Surely that's the real problem the team have to solve. P-TRIZ allows us to convert opposing forces to problem statements, revealing deeper knowledge that can lead to solutions.

Seeing The Whole Picture

It's hard to see the wood for the trees using SWOT. The relationships between opposing forces are lost. Deeper relationships, necessary for problem-solving, are obscured. Rather than start with a SWOT and convert to TRIZ, let's start with TRIZ and forget about SWOT all together. After

all, the logic of a SWOT shown in Figure 1 is inherent to TRIZ. TRIZ is a unification of many common business methods.

Here is the SWOT of table 1, re-expressed as a TRIZ model as if we had started using TRIZ in the first place. See how much clearer the TRIZ model is about the nature of the problem:

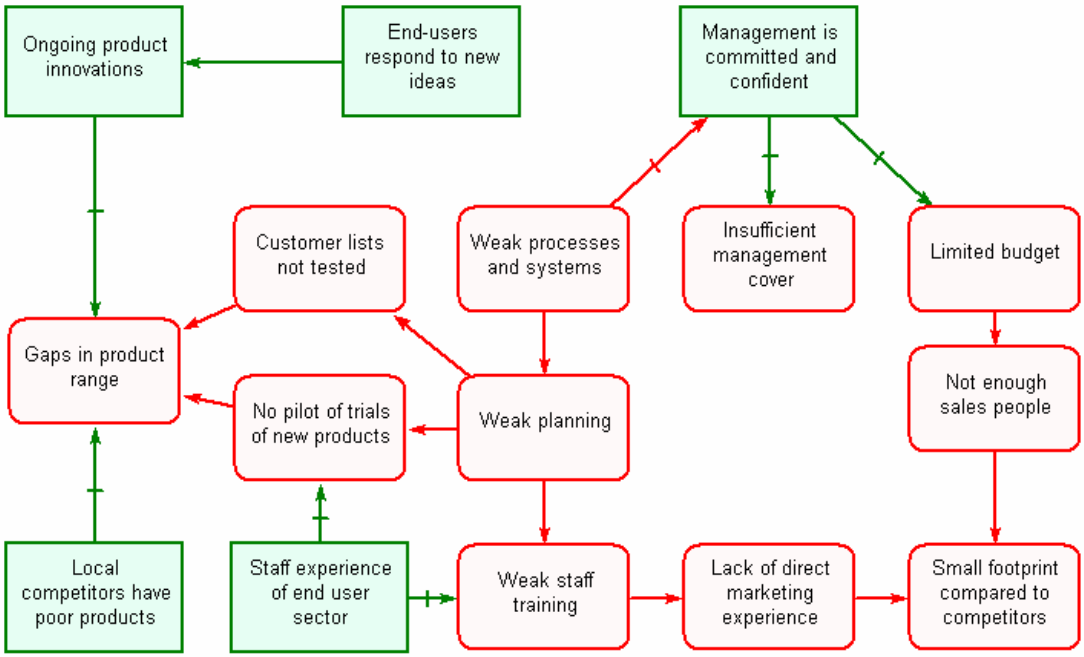

Figure 5 – SWOT of Table 1 clarified as a TRIZ model

Let's put that in words:

End-users being responsive to new ideas will provide the opportunity for ongoing product innovations. This can counteract gaps in product range for the new sector arising from untested customer lists and lack of pilot trials. These weaknesses arise from weak planning, as a result of weak local processes and systems. Existing staff experience of the end user sector can counteract the lack of trials and make up for weak staff training, but limited budget means that there simply won't be enough sales support, which will create a small footprint compared to competitors. Fortunately, local competitors have poor products which can partly make up for the fact that the company has gaps in its product range. Management commitment from head office can intervene to provide budget, and additional management cover.

The clarity of this model was not artificially contrived for this article. The labels on the diagram correspond closely to the terms used by the team who developed the original SWOT. The SWOT was not prepared for this article. It was found on the Web courtesy of Google.

The Innovator Is A Pessimist

The innovator is an optimistic pessimist. To create positive change it is necessary to focus on harmful functions with an effective problem solving process. Only this can provide the inspiration for positive solutions.

In the TRIZ model of figure 5 I chose to focus mainly on weaknesses and threats. The positive aspects of the original SWOT are next to useless, telling us little that we don't know about the company, and acting only to distract us from the underlying problems.

Here is a subset of the positive problem-solving statements generated from the negative problem statements in figure 5 that can lead to positive solutions:

3. Find a way to eliminate, reduce, or prevent [the] (Customer lists not tested) in order to avoid [the] (Gaps in product range), under the conditions of [the] (Weak planning).

4. Find a way to eliminate, reduce, or prevent [the] (Gaps in product range) under the conditions of [the] (No pilot of trials of new products) and (Customer lists not tested).

5. Find a way to eliminate, reduce, or prevent [the] (Small footprint compared to competitors) under the conditions of [the] (Not enough sales people) and (Lack of direct marketing experience).

6. Find a way to eliminate, reduce, or prevent [the] (Lack of direct marketing experience) in order to avoid [the] (Small footprint compared to competitors), under the conditions of [the] (Weak staff training).

7. Find a way to eliminate, reduce, or prevent [the] (Not enough sales people) in order to avoid [the] (Small footprint compared to competitors), under the conditions of [the] (Limited budget).

8. Find a way to eliminate, reduce, or prevent [the] (Limited budget) in order to avoid [the] (Not enough sales people).

9. Find a way to eliminate, reduce, or prevent [the] (No pilot of trials of new products) in order to avoid [the] (Gaps in product range), under the conditions of [the] (Weak planning).

10. Find a way to eliminate, reduce, or prevent [the] (Weak planning) in order to avoid [the] (Weak staff training), (No pilot of trials of new products) and (Customer lists not tested), under the conditions of [the] (Weak processes and systems).

11. Find a way to eliminate, reduce, or prevent [the] (Weak staff training) in order to avoid [the] (Lack of direct marketing experience), under the conditions of [the] (Weak planning).

12. Find a way to eliminate, reduce, or prevent [the] (Weak processes and systems) in order to avoid [the] (Weak planning).

13. Find a way to eliminate, reduce, or prevent [the] (Insufficient management cover).

15. Find an alternative way to obtain [the] (Ongoing product innovations) that offers the following: eliminates, reduces, or prevents [the] (Gaps in product range), does not require [the] (End-users respond to new ideas).

17. Find a way to protect [the] (Management is committed and confident) from the harmful influence of [the] (Weak processes and systems).

Ambition Is Not Enough To Create Change

A SWOT is only a statement of ambition. It identifies a change and defines it as having associated benefits (opportunities), reinforcing factors (strengths), counteracting factors (weaknesses) and elements that may rise up to destabilize the change (threats).

At the start of this article (in figure 1) I showed an abstract model of a SWOT. This model was formulated to generate a set of innovation strategies. Now that we understand the purpose of a SWOT in more detail, I am able to draw a revised model from a different perspective:

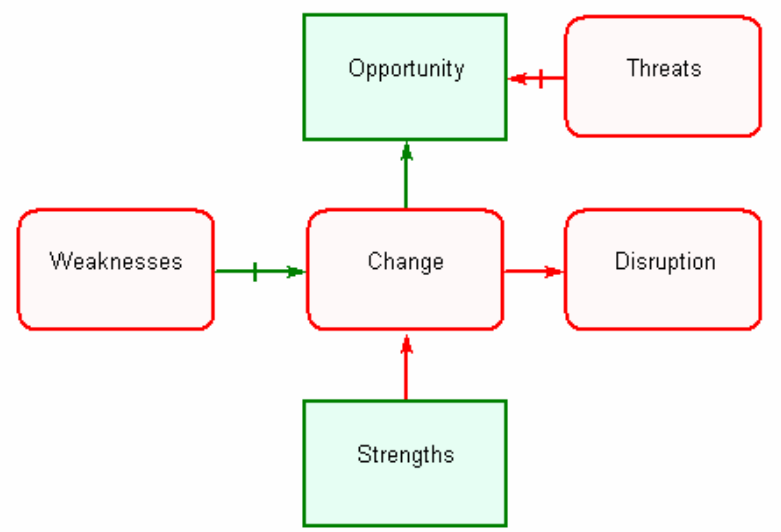

Figure 6 - Change is disruptive, but creates opportunity

At first, this model may look illogical. This is what it says:

Strengths enable an organization to change. Change is what produces opportunity, yet change is also harmful because it creates disruption. Weaknesses are harmful because they counteract change. This is why many organizations permit weaknesses to continue and problems to fester. The easy way is often the chosen path. Avoiding problems is a common career option. Organizational inertia is common to all organizations. It is why the best organizations are those who continuously strive to reinvent themselves, their products and services. It is these organizations that are the most innovative.

Innovation is a directed process of problem solving. Sustain the process and intensify it and you will find solutions. Without it you may find solutions by chance, but you'll miss many opportunities to create positive change. Practiced with rigor and taught as a discipline to the majority of staff, it will force an organization to confront its problems in a way that reveals the contradictions at the heart of its ambition.
Here are the directions generated by figure 6:

1. Find a way to eliminate, reduce, or prevent [the] (Change) in order to avoid [the] (Disruption), under the conditions of [the] (Strengths), then think how to provide [the] (Opportunity).

   1.1. Find a way to benefit from [the] (Change).

   1.2. Find a way to obtain [the] (Opportunity) without the use of [the] (Change).

   1.3. Find a way to decrease the ability of [the] (Change) to cause [the] (Disruption).

2. Try to resolve the following contradiction: The harmful factor [the] (Change) should not exist in order to avoid [the] (Disruption), and should be in place in order to provide or enhance [the] (Opportunity).

3. Find a way to eliminate, reduce, or prevent [the] (Threats).

   3.1. Find a way to benefit from [the] (Threats).

   3.2. Consider the conditions that cause [the] (Threats) and try to change them.

4. Find an alternative way to obtain [the] (Opportunity) that offers the following: does not require [the] (Change), is not influenced by [the] (Threats).

4.1. Find a way to increase the effectiveness of [the] (Opportunity).

4.2. Find additional benefits from [the] (Opportunity).

5. Find a way to protect [the] (Opportunity) from the harmful influence of [the] (Threats).

5.1. Try to compensate for the harmful influence of [the] (Threats) towards [the] (Opportunity).

5.2. Try to reduce the sensitivity of [the] (Opportunity) to the harmful influence of [the] (Threats).

6. Consider replacing the entire system with an alternative one that will provide [the] (Opportunity).

6.1. Consider transition to the next generation of the system that provides [the] (Opportunity), but which will not have the existing problem.

6.2. Consider enhancing the current means by which the primary useful function is achieved, to the extent that the benefits will override the primary problem.

6.3. Consider giving up the primary useful function to avoid the primary problem.

7. Find an alternative way to obtain [the] (Strengths) that does not cause [the] (Change).

7.1. Find a way to increase the effectiveness of [the] (Strengths).

7.2. Find additional benefits from [the] (Strengths).

7.3. Find a way to decrease the ability of [the] (Strengths) to cause [the] (Change).

8. Try to resolve the following contradiction: The useful factor [the] (Strengths) should be in place in order to fulfill useful purpose and should not exist in order to avoid [the] (Change).

9. Find a way to eliminate, reduce, or prevent [the] (Weaknesses) then think how to eliminate, reduce, or prevent [the] (Change).

9.1. Find a way to benefit from [the] (Weaknesses).

9.2. Try to increase the effectiveness of the action of [the] (Weaknesses) toward reducing the harmful nature of [the] (Change).

9.3. Consider modifying or influencing [the] (Change) to improve its being eliminated, reduced, or prevented by [the] (Weaknesses).

9.4. Consider the conditions that cause [the] (Weaknesses) and try to change them.

10. Try to resolve the following contradiction: The harmful factor [the] (Weaknesses) should not exist in order to avoid harmful results and should be in place in order to eliminate, reduce, or prevent [the] (Change).

11. Find a way to eliminate, reduce, or prevent [the] (Disruption) under the conditions of [the]

(Change).

11.1. Find a way to benefit from [the] (Disruption).

11.2. Try to cope with [the] (Disruption).

11.3. Consider ways to compensate for the harmful results of [the] (Disruption).

11.4. Consider creating a situation that makes [the] (Disruption) insignificant or unimportant.

The Future Will Be The Same As The Past Unless Something Changes

The past is always harmful, for without change it gives rise to the present. It is also useful, for we can learn. The present is harmful also, for unless we can solve a problem the future will be the same as the past. Only change can counteract the present, and create a better future. And all change requires a problem to be solved.

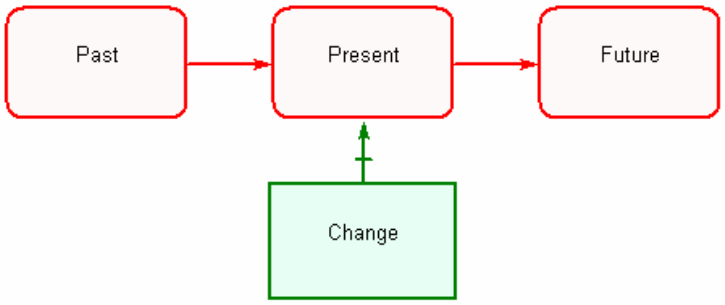

Figure 7 – Only change can create a better future

This simple realization, expressed in a TRIZ model, gives rise to the following wisdom:

1. Find a way to eliminate, reduce, or prevent [the] (Past) in order to avoid [the] (Present).

1.1. Find a way to benefit from [the] (Past).

1.2. Find a way to decrease the ability of [the] (Past) to cause [the] (Present).

1.3. Consider the conditions that cause [the] (Past) and try to change them.

2. Find a way to eliminate, reduce, or prevent [the] (Present) in order to avoid [the] (Future), under the conditions of [the] (Past).

2.1. Find a way to benefit from [the] (Present).

2.2. Find a way to decrease the ability of [the] (Present) to cause [the] (Future).

3. Find a way to eliminate, reduce, or prevent [the] (Future) under the conditions of [the] (Present).

3.1. Find a way to benefit from [the] (Future).

3.2. Try to cope with [the] (Future).

3.3. Consider ways to compensate for the harmful results of [the] (Future).

3.4. Consider creating a situation that makes [the] (Future) insignificant or unimportant.

4. Find an alternative way to obtain [the] (Change) that eliminates, reduces, or prevents [the] (Present).

4.1. Find a way to increase the effectiveness of [the] (Change).

4.2. Find additional benefits from [the] (Change).

4.3. Try to increase the effectiveness of the action of [the] (Change) toward reducing the harmful nature of [the] (Present).

4.4. Consider modifying or influencing [the] (Present) to improve its being eliminated, reduced, or prevented by [the] (Change).

Truer words have never have been spoken.

The Innovator Is A Problem Solver

Organizations cannot rely on chance, ad-hoc creative acts, purpose-built labs or special staff with innovation status. Innovation is not the same as creativity or skills. Innovation is the process by which we learn from the past in order to solve problems in the present that can create a better future. Only by codifying and intensifying this process can organizations be more innovative and attract higher prices. This is what TRIZ seeks to provide. The approach is not so unusual.

As every BPM practitioner knows, a process discipline has been achieved in many business processes, for example, supply chain. Now with modern TRIZ that rigor can be applied to innovation, creating a reliable operating system for value creation. Just as Six Sigma – properly executed – guarantees reduction in errors, systematic TRIZ guarantees idealization: an increase of useful functions and a decrease of harmful functions. And now with P-TRIZ the loop is closed for all business processes. BPM practitioners now have a process for process innovation.

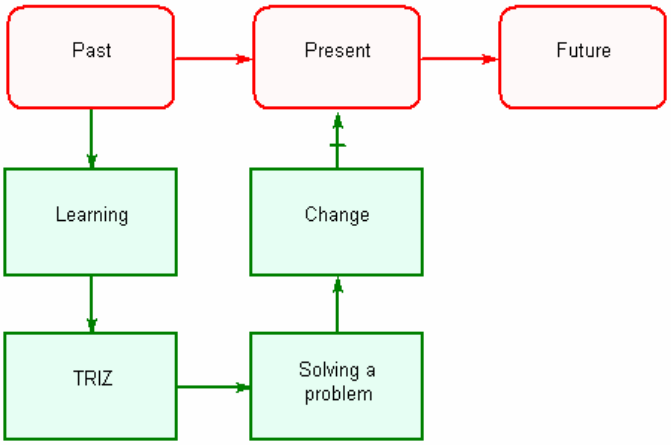

Figure 8 – TRIZ impact on the present