

Opportunities Boot Camp: What Every Business Should Go Through

Every once in a while when the government gets out his statistics on “innovation” they look at the number of scientists, the R&D that is done in the private enterprises, the number of research centers (public and private), etc. For the popular business press, innovation equals R&D. In economic development, it is also an obsession with the high tech clusters, the R&D centres, the scientists, biotechnology, IT, etc. Most people seem to forget that “R&D” is a mean not an end in itself. The ultimate purpose of a business is to create a customer, an economic activity, not a bright idea, not high tech products or services per se. It starts and ends with the customer. On a macro level, high- tech is not the panacea everyone wishes it was. To quote Addison Wiggin in his book “The Demise of the Dollar”:

Given the disparities between economic reporting and the real world, the economic importance of high-tech industries has been and continues to be overhyped in the United States. In term of sales, employment, and earned profits, it is a sector of minor importance. The high-tech profit performance has been abysmal.

Hence, we forget that the “bright ideas” are the riskiest and least successful of innovative opportunities. No wonder we have trouble facing change, we think we just need more PhDs and voilà! Those are inputs not outputs. In a recent official report on innovation in Québec, when they surveyed the firms and asked where they get their innovation from, 42% said from their customers! Well, as they say, if you don’t have a customer, you don’t have a business, this figure seems to indicate firms are very inward or activity oriented rather than customer focused.

It doesn’t mean we should not encourage science and related fields, but that alone can not make a successful company. Maybe you have a very clever product (“clever” by the way has killed more businesses than anything else) but maybe your assumptions about the market are wrong, maybe your positioning is weak, maybe it’s not what the customer values, etc. That’s called marketing but it does not show up in the ‘innovation statistics”. Oh and even if you have a very nice product and great marketing, times are a... changing. That’s life, so you’ll need to change the product or even yes, dump it and create new ones that will fit reality. We think this is magic but it’s called managing a business, any business. Successful innovators focus on the end result, the effect on the business environment rather than on the product.

Einstein said: “The most important decision we make is whether we believe we live in a friendly universe or a hostile universe”. Entrepreneurs see change as an opportunity not as a threat. They purposefully look for opportunities and the successful ones are doing this in a systematic way. Innovation can’t be a one-time thing because it won’t be sustainable. And your community won’t have

sustainable growth if you don't have a great deal of your companies consistently innovating. The bad news is that there are no quick fixes or one minute recipes (or everybody would do it). The good news is that this process can be learned and of course, like dieting, it needs to be **applied** to produce tangible results.

Effective innovation demands that companies look for opportunities, be organized for it, and be managed to exploit it. In this article, we will look at the first part: the major sources where one should look for innovations.

7 sources of opportunities:

1- The Unexpected (failures, successes, events)

This is the less "risky" area and the easiest to pursue yet, most of the time, management will discard it. For example, in the 50s, Macy's, the famous department store, was experiencing high growth sales in their appliances but that's not what they were known for, they were a fashion store so they did not act on it. Soon, another department store, Bloomingdales, was seeing the trend and capitalized on this new need of the American family and created the "Houseware Department" propelling itself number 2 in the market (they were number 4). Likewise, in their debut, IBM was selling their computers to the scientific community, they did not think it was suited for other types of organizations but when the president, Mr. Watson Sr, heard from a lady at the New York Public Library that she wanted to see his machine, he did not hesitate, he went and got the orders. A whole new market had opened up and it was only the beginning of many other orders to come.

In effect, the unexpected success is a challenge for management because it shakes their beliefs and put them out of their comfort zone. Hence, the unexpected success is often not seen, let alone pursued. Also, the practice of reporting in companies is based on highlighting problems. At meetings, everybody focus on the shortfalls instead of looking at where we are doing better than expected. It's not being rosy to act that way since merely fixing problems never helps a company to thrive. Why is it important to look for the unexpected success, analyze it and ask questions? Because it is often a symptom of a change and this is exactly what you want to know if you want to take advantage of it instead of being a victim of it.

Unexpected failures, on the other hand, rarely go unnoticed since, as we mentioned above, we like to concentrate on problems. The failures to look out for here are not the ones that are the results of incompetence, poor execution or bad planning but the ones that, in spite of a clear strategy and effective execution, do not yield the intended results. The good news (even if it's sound contrarian) here is that you are maybe on to something in the sense that the assumptions on which the product or service is based may no longer be in tune with reality. Your customer may buy the same "thing" but they are no longer buying the same

“value”. At first, buying a car was very instrumental; it was a very efficient mean of transportation. Now you just don’t buy a car, you buy a status, it says something about you. This changed the way manufacturers envisioned making cars.

When faced with failures, management usually reacts in “blaming the irrational customer” or by wanting more studies done. It is exactly the opposite that is needed. One needs to go out, look around and listen for something has changed and it should be taken seriously. Again, like successes, it challenges one’s belief and sometime it ends up we were wrong. It is hard to do, no question about it but it needs to be done in order to succeed. In the unexpected realm, it is also important to look at events occurring with your suppliers, your competitors as well and not only with your customers.

There are also unexpected events that occur outside one’s industry or business. For example, terrorism creates opportunities for the security industry. It is not to be confused with diversification; this still needs to be aligned with your business strengths. These outside events trigger new applications for an already existing expertise. The avian flu is another example that brings more business to vaccines developers and manufacturers. This type of event seems to suit large companies as they tend to look at the big picture and can mobilize rapidly a great amount of resources. But it should not deter smaller companies from inquiring into these unrelated events as they occur frequently and usually produce great results.

2- Paradoxes

Paradoxes are what you observe as a discrepancy between what you think a situation should be and what is. You can see paradoxes in different kind of settings but it is usually occurring within an industry so it is visible for the people in the business. The classic example is a situation where the demand is rising but the profitability and results are not there. This is good for small focus players to come in and bring something different, produce results while the others are still figuring out what to do about the “problem”. You can think of the “mini mills” in the steel industry: they came to replace the integrated steel mill which was too costly to operate and accommodate incremental demand. Another example is the auto industry where you had the Japanese manufacturers who came in to challenge the US auto makers in a situation where demand was rising but the results were not there for the latter.

In economic development, we all have an opinion on why businesses fail. But all in all, it is fairly simple: if you can’t adapt to the changing environment, you are going to disappear. So the assumptions we make about reality are what makes or breaks most businesses. If those assumptions do not fit the reality, we will unfortunately concentrate our efforts where the results do not exist.

Paradoxes offer opportunities in the public service institutions as well, in health care for example; people in that industry know the basic flaws and yet most will try to improve here, patch there. And in some cases, you will see new businesses capitalizing on this discrepancy and offer, for example, diagnostic and related services (tests, etc.) outside the hospital settings creating a whole new industry in itself (private or semi-private).

One common area where we'll find paradoxes are the difference between what **we think** our customer perceives as valuable and what he actually perceives. It usually stems from our own arrogance and translates into: "We know what's best for our customers or we know what this type of customer can afford, etc." When one can see through this, it is usually a great opportunity for another player to come in. For example, the Dutch bank ING saw opportunities with customers tired of earning zero interest on savings accounts (unless you have godzillion dollars in it). For sure, ING is set up differently than a traditional bank, they don't have branches, it's more a virtual presence but at the end of the day, among the many needs of bank customers, one is a simple, flexible way to earn reasonable interest on their savings with no minimum balance or fees. As they say in their clever advertising: "Bank Fees. Like a Screen Door on a Submarine". You can find a similar paradox with telecommunications companies, other "big" Wall Street financial services firm which thinks that the goal of every human being is to get filthy rich (how can it be otherwise?) instead of preserving capital. It helped the financial services firm Edward Jones for example to serve the Midwest market where the goal of Midwesterners tends to be more toward preserving capital.

3- Process need

This opportunity is based on a need (following the saying: "Necessity is the mother of invention") as oppose to an occurring event in the industry. The need starts with the task to be achieved and its aim is to perfect a process that already exists. Most often, people within the industry are aware of the process flaws but they don't necessarily act on it. Yet it can yield great results.

But one has to go beyond just noticing that something is not optimal, one has to consider looking at the end result of this process opportunity by asking questions and analyzing the following elements:

- The need has to go beyond a "feeling", it needs to be defined and understood. School drop outs for example is a problem and authorities have tried many programs and policies to bring down the rate but it has not been very successful at large. Only in certain settings have we seen some results but it seems hard to replicate. Hence, it is difficult to improve a process if we don't quite understand the problem.

- We understand the problem but it requires new knowledge. For example, bright people have worked for a long time on the chemical conversion (oxygen atom capture) of nasty CO₂ emission into friendly CO. It should be easy, we are talking about one atom here but we lack the knowledge to make it work even after sustained research.
- The solution to the process weakness must fit the way people do the work and want to do it. I knew a medical device company in Quebec who had developed a digital stethoscope for physicians. This new product was many times more efficient and precise than the old one but it could not be worn around the neck. Well it got rejected because the stethoscope around the neck is part of the doctor's status; it represents who they are (values).

So the process weaknesses and needs are fairly visible to people within an industry (and public service institutions) but they need to be analyzed in light of the criteria mentioned above.

4- Changes in industry/market structure

Industry and market structures may appear very solid over time so people in it tend to think they will last as is forever. Until it changes. And it can happen fast. Everybody in the business then needs to provide a new answer to that business change.

The auto industry is an example of an industry that went through many changes (and still is). Each time, players needed to respond (or better, anticipate) or new ones would enter the market and exploit the change. It consists of hard choices for companies because it usually means abandoning things. That is also why it is seen as a threat from the people inside the industry and an opportunity for new players outside.

Like process weakness, one has to analyze the faults or missing link that he sees in an industry to make sure it is a fundamental trend (not just a fad) and that our proposed solution will work. As guidelines, one should look at the following elements:

- When you see rapid growth in an industry, faster than the economy or the population for example, you will see drastic changes in the industry structure. What makes it an even more interesting opportunity is that existing practices (established players) are still very successful so nobody sees the "danger" ahead.
- When an industry doubles in volume, its leaders are less in tune with how their customers perceive value or they don't pay attention to new customers coming in the market. They based their knowledge, reports and

figures on “old” views. It is then an opportunity for a newcomer to come in and service those customers.

- Converging technologies can also be an indicator that changes will occur within an industry. The combination for example of computer technologies and telecommunications gave many opportunities to new players to enter the market, especially of the traditional telecommunications companies which consider the computer as something totally different (or suffer from the “not invented here syndrome”) so they did not push new “combined” products such as the PBX system (switchboard combining computer and telecommunications technologies) for example (Bell Labs System). This was an opportunity for new players to develop and sell the new products.

5- Demographics

This is a very important source for innovation and it is often overlooked or not quite well understood. Demographics lie outside one’s industry and has huge impact on will be bought, by whom, and in what quantity. It is also clear and predictable.

The most significant statistic is age distribution (not so much total population). The predominance of one age group over the others (size and growth rate) has obvious implications for the markets of goods and services.

For example, in Canada and the US, the ratio of workers to non-workers will peak within the next 4 years. Workers vs pensioners in Canada have already peaked. This means fewer workers, making less money than their parents (in real terms) and that will be supporting social security, health care and other related programs. This will no doubt involve changes for the private and the public sectors. And change means opportunity so this reality will bring new markets to exploit.

As we can see, the patterns are fairly easy to appraise (rising demand for senior homes, medical equipment, home care, etc.) but most people think of demographics as a slow process so they have time to adjust. It is dangerous to look at it that way since you react to the trend instead of being in a position to take advantage of it. For example, the automation of the manufacturing sector is of great help to compensate for the labor shortage in developed countries – Japan has an envied reputation for their manufacturing abilities but they suffered from the labor shortage (aging population) before the North American and European economies so they use robotics (even if they did not invent it) extensively to still maintain manufacturing production to a certain level even if they work with less people.

General trends in demographics can be predictable but it does not mean that we don't experience booms and busts that are hard to predict: the baby boom after WWII, the baby bust in the 1960s, women massively entering the labor market in the 1970s. But even if these shifts are radical, one has some lead time before the age groups mature (babies to kindergarten, retirees to senior homes, etc.).

The statistics are the starting point but one has to go out, inquire and listen to evaluate the opportunity and the solution provided.

6- Changes in perception, mood

This is an opportunity in the way people perceive a situation. The change is more in the meaning than in the situation per se (the facts do not change but the meaning does). For example, based on facts, a situation can improve overtime (death at birth rate, life expectancy, etc.) but the way people look at it may not be in synch with it. The life expectancy is a great example in our developed countries because it has improved dramatically but people have never been so fearful of health related issues. Everything you eat or breathe seems to carry a deadly element. This perception has opened up a whole new field in the health and fitness goods, services, education, etc. You could say that a change in the perception of "eating" has taken place as well. It went from sustenance to a lifestyle issue (which created markets for: TV programs, gourmet foods, cookbook, super star chef, etc.).

Like demographics, to exploit change in perceptions, timing is of the essence. Too soon or too late and you miss the mark. Also, it is hard sometimes to separate what is a real change in perception and a fad. So because it is more risky, one should start small and focus.

7- New knowledge (pure or combined)

As mentioned at the beginning of this article, this is what people mean when they talk about innovation. It makes the headline. But it is number 7 in the hierarchy of the sources of opportunities precisely because it is the riskiest and a long shot.

New knowledge as a source of innovation has the longest lead time of all sources. Between new knowledge, the actual application and products, one will find that it takes longer than most people realize. There is also long lead time in non technical innovations as well. If we take management theory, even if we had organizations around for quite a while, the theory of management took time before it became a discipline and practice available to managers (Peter F. Drucker contributed greatly to the matter in publishing the first book on the subject in 1946: *The Concept of the Corporation*). The typical lead time one can observe is 20 to 25 years. Thomas Kuhn in his book "The Structure of Scientific

Revolutions” talks about a cycle of 30 years before scientists accept and use a new paradigm.

We often think that today is different, that the pace is faster but it is an illusion (except if motivated by war). For example, when we look at the time needed to transform major discoveries into tangible products in the Middle-Ages to that time needed in the 20th Century, one sees the same lead time of 20 to 25 years. With new knowledge, one also deals with the fact that very often many different technologies need to come together to yield a profitable product or service. Thus, it renders this source of innovation even more difficult because you need technologies and knowledge in different fields to mature and then think of using them together productively.

There is also a unique risk when one is working with new knowledge as a major source of opportunity: time is against you. Unlike the other sources (unexpected, process, demographics, etc) where you still have time if you make a mistake, you are not tied, like so many of the scientific based innovations, to a “window”. If you are not entering the “window” at the right time, much is lost. For example, in the biotechnology business (IT as well), there are “windows” opening for financing. If your new venture is not ready to raise capital during this time, it will be very hard when the “window” closes, as it always does. In the mid-90s, US biotech start ups were coming to Canada to obtain financing as the “window” had shut in the US because most of their venture capital money was going into internet start ups.

The limited time frame affecting the development of new knowledge opportunities lead to a crowded market, filled with many entrants at one point in time, reducing the chance for survival. Finally, when the “window” does shut, it usually does so abruptly. So the majority of start ups which raised capital during the “window” don’t survive. The industry over time is left with fewer players. Not for the fainthearted!

Still, there are ways to help this endeavour succeed and entrepreneurs should look at these guidelines when considering new knowledge opportunities. First, knowledge based innovations must look at the whole picture, not just at the technical aspect but also at social and economic or perception factors (remember our digital stethoscope). It must find out what is missing in those categories that will affect the innovation. The best examples of this omission are the British and Canadian reputations for inventing, designing, developing great ideas and products. Then, the Americans take over and built profitable businesses out of it. Canadians and Brits just love to talk about their products, their inventions but not so much about markets and customers. And remember, no customer, no business.

The second important requirement is knowing what type of strategic position one wants to occupy. Besides the fact that the innovation creates excitement and

because the field will be more crowded with competitors than one would like, it is important to decide how one will play its role in the market, how it will serve the market, what function will it fill: create a market, deliver a full solution, a specific function within an industry to minimize the turbulence of the market, etc. Whichever but the knowledge based innovator has to decide on a clear position.

New knowledge (R&D, high tech) is the riskiest source of innovations but it is the price to pay to bring about change in our society. By combining this source of opportunity with other sources as we have seen, one can lower the risk. Above all, the new knowledge innovator needs to practice entrepreneurial management, not get infatuated with its technology and understand that “quality” is not measured by how sophisticated his product is but what the customer consider value.

The bottom line for communities: first, stop opposing management and entrepreneurship as they are the two sides of the same coin. An entrepreneur that does not manage will disappear (read “high tech”). A manager that does not innovate will not last long either (read manufacturing old products). Any organization (public and private) has to be geared for change, create it and not react to it. Second and finally, stop focusing on R&D or high tech alone. The question is: do you have solid companies, innovative companies looking at these sources of opportunities and that are organized to manage and exploit change?