Innovation

How to innovate in a downturn economy.

Paper by:
Julian Vu

Executive Summary

This paper discusses the topic of innovation. It covers the three views of innovation as described by the book, and considers the benefits and consequences of innovating globally rather than domestically. Finally, the paper discusses an article in the Wall Street Journal about methods and approaches to innovating during a downturn economy, and also mentions that a downturn economy is the best time to innovate, so long as the innovator sticks to the three rules.

Today's society is a very complex and technologically rich society. Many of our conveniences today were not available 50 years ago, some of which not even available 5 years ago. Most of our advances come out of a business practice called "innovation." As MBAs, the concept of Innovation is not foreign to us. We have come to understand innovation as creatively changing products to not only meet consumer demands, but exceed them as well. All of these efforts are designed to add value to the customer, while still managing to develop business in a forward motion. Innovation may only appear to exist in highly technological firms, but even small businesses can find ways to innovate. To more clearly understand the concept of innovation, consider the definition of the term innovation.

According to the Oxford Dictionary, Innovation is: "the action or process of innovating, or a new method, idea, or product.[1]" This definition supports a hypothesis of mine in that there is a misconception about innovation. To most, innovation is simply putting out technologically advanced products such as Apple Computer's iPhone. What most do not realize is that it is not the phone itself that is uniquely innovative, but the processes and intellectual property that go into developing the iPhone that is innovative. Even the support services are innovative in that ten years ago, we would have never imagined having high speed internet available on our handsets a possibility. Thus, innovation not only spans new products, but the development behind these new (and old) products. This paper will examine the concept of innovation, and apply it to a global setting, making considerations for the currently downturned economy.

Global Innovation

Most people believe that innovation occurs in a single laboratory in a single location. While this used to be normal practice fifty years ago, today's technological advances in communication has allowed for global interconnectedness and as a result has allowed innovation to span not only a nation, but all the way across the globe. The benefits may not seem evident at first, having to share trade secrets with someone halfway around the world who you may not know, and may not ever see for that matter. International globalization has been effective in other areas already as indicated through the outsourcing phenomenon occurring in India. Clearly, lower labor costs are an evident benefit in innovating globally. There are other benefits however, and the best approach to determining these benefits (and consequences) are to consider the three approaches that we have been

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[1] "Innovation" - Oxford Dictionary; http://www.askoxford.com:80/concise_oed/innovation?view=uk

using during class. These three approaches are the resource based view, the industry based view, and the institutional view.

The resource based view should be the easiest view to understand, because they are the factors that immediately play into business strategy. Not all resources are domestic, and while the 1980's was a period of American nationalism, today's economy has come to welcome exporters such that not only are there foreign products, but also domestic products will use foreign components. From a production standpoint, there is much opportunity for innovating the supply chain, and doing so in a global manner. As raw materials become deplete in the United States, foreign sources must be sought. How can foreign sources be sought in an innovative way, though? Often times, innovation may occur by accident. As an example, in Jamaica, Bauxite is mined regularly and is considered a significant national export. A byproduct of Bauxite is limestone, because the Bauxite is located beneath the limestone. There are practical uses for the limestone in places outside of Jamaica, such as the United States construction industry. The Americans can now purchase the byproduct at a cheap rate, and bring it into the United States, where has become depleted. This is a very basic view. In terms of highly technical innovation, there are foreign resources, the most evident being inexpensive labor. Not only is there inexpensive labor, there is also highly skilled labor, which may not be easy to come by in certain areas. Additionally, there are only a limited amount of world class research facilities. If an emerging market needed to conduct research, but did not have the capital to build the research centers, they could outsource research to more developed countries. The point that should be drawn from the resource based view is that the resource based view is the most easily understandable contributor to innovation. If a firm wants to know how, where, when, or even what to innovate, they should apply the resource view to determine if the market is ripe for them, not only in the short-run, but also in the long.

The next view is that of the industry based view. Interestingly enough, industries are very competitive, yet very close to one another. This feeds into the notion of "*keep your friends close, keep your enemies even closer.*" The main reason for the closeness is due to a desire to control the market, and not be rejected by it. Many strategic alliances have been formed, which allow for the exchange of information in a manner that is conducive to innovation. As a firm, the industry based view should guide innovation, as well as keep it on track. If other firms are innovating more effectively than you are, then as a manager, you should assess your innovative performance and revise it to innovate stronger. All the while, industry based view does not apply to a micro-industry, it can be considered from a macro point of view. Say if you are in the consumer electronics business, and you produce kitchen appliances, but you want to see what advances are being made in household appliances such as washers and dryers, then you will want to focus on what's going on in the industry not only for the types of processes and products your competitors are using, but also to forecast consumer spending data. Some areas of retail are less sensitive than other products are, and if a highly sensitive product is seeing a drastic drop in demand, then a firm should take into consideration the possibility of an economic trend that will eventually affect your less, but still sensitive product. The industry based view is particularly important in our current economy, which will be discussed later in this paper.

Finally there is the institution-based view, which has more to do with governments, regulations, and academia. While most would consider the government to be a barrier to innovation, the government can actually play a significant role in helping companies to innovate. Governments can grant tax credits for firms that spend money on research and development, and governments can even subsidize some of these projects provided they help economy or society. Academia should be viewed in the same regard. Many schools are subsidized by major firms to conduct research in technological fields that will help to add value to firms' product offerings as well as processes. All the while, academia is no guarantee of good innovation. Some believe that there is an element of luck to innovation, but I believe that it's simply a matter of how well firms can grasp the combination of all three views, particularly the institution-based view. If not handled correctly, the government can easily find ways to penalize firms for attempting to be innovative. Though it may seem unfair, it is unfortunately a part of not only our government, but governments around the world, as well as global academia.

The three views help managers to understand innovation better, however there needs to be a system for managing all the knowledge and intellectual property that is used. In this case, the book talks about "Knowledge Management," which is generally an IT-system used to track project progress and store intellectual and proprietary information. There are limitations to this however, and the krux of this argument is based on the two types of knowledge; explicit, and tacit. Explicit knowledge is defined as knowledge that is easily tangible and understandable. An example of explicit knowledge may be something as simple as the exact amount of screws needed for an assembly, to a very detailed schematic diagram. Whether simple or complex, both are explicit, and there is no room for argument, it simple stands as it stands. Tacit knowledge, on the other hand, is knowledge that is difficult to quantify, and cannot easily be explained or translated over traditional international communication methods (e.g. videophone, email, attachments, etc.) The book provides experience as being a form of tacit knowledge. In other words, you can give a person directions on how to fly a plane, but does it mean they will get it right on their first try? Essentially, there needs to be a knowledge management system that can handle both without requiring people to fly across the globe to explain things. Luckily, innovation and advances in the technological field such as Internet2 are making it possible for research centers to communicate with one another more effectively. To facilitate this barrier to innovation, there needs to be some sort of international standard for business communication, of which there is none. Luckily, this provides an innovation opportunity for he or she that is seeking to develop within this field.

Innovating in a Downturn Economy

The article I chose came from the Wall Street Journal, and talks less about innovating globally, and more about innovating during a downturn economy. It argues that historically, some of the greatest advances have come out of downturned economies. Some of these examples include the iPod, which was launched within months of September 11, as well as DuPont, Hewlett-Packard, and Texas Instruments being launched during the great depression. While these four firms are considered industry leaders in innovation, it does not necessarily mean that entrepreneurs should go and start dot-coms up again. If anything, innovation should consider the mistakes of dot-com startups and reinvent innovation in a method that makes considerations for market fluctuations.

According to the article, successful innovation during downturn economy is dependent on three factors. First, one must effectively choose "where to play." This is not necessarily in geographical terms, but rather where in the market they should position theirselves. The article cites some of the major players in the value/low-cost industries to have risen due to their effective ability to take advantage of down markets. Some of these firms include Southwest Airlines, and Charles Schwab. The customer base is shifting due to changing spending habits, and in order to innovate, firms not only have to develop innovative products, but also employ innovative pricing. A large reason that successful firms have been successful is due to their ability to snag customers, and retain loyalty over a long period of time; essentially understanding the time value of not only money, but loyal customers. This is not an easy concept for many to grasp, and it is even harder to implement due to the amount of risk involved with underselling at a lower price. If firms can pack more value into a price, sacrificing a lower margin, but still a profit, then the firm will see strong growth and stronger than anticipated profit in the future.

In addition to knowing where to play, a firm needs to know "how to deliver." And that's not just the product, not just the price, but the entire package and value proposition. This means after-sales support, pre-sales marketing, services marketing, improved quality. All of these measures can constantly improved upon, and only through innovation can these improvements occur. Finally, the most important factor is knowing "how to win." Most decisions cannot be done on speculation, but rather on wise and prudent investment. Innovation does not simply mean that a firm has a blank canvas and can paint away with a new idea. Innovation requires controls just as any other process does. The article mentions that if there is a flurry of entrepreneurial activity (whether innovation-based or not), the market situations will worsen due to increased risk. Thus, it is a firms' job not to innovate dangerously, but assure investors, as well as consumers that the firm is innovating in a positive manner.

The article does not mention global innovation, however I wanted to add some commentary on the matter. By applying the "where to play, how to deliver, and how to win" methods to global innovation, this increases the complexity of decision making that is involved, however it also increases the opportunity even more. With the "where to play" method, there are now new markets, some emerging, that would be gracious to adapt some of your practices. "How to deliver" will change for you, and this will require innovation, however consider that a little innovation will open up a market for a long time, and the little bit of innovation that you do put in will bring back a stronger return. Finally, knowing "how to win" is still important, because opening up to global innovation is *very* risky. As a firm, you should develop strategic alliances, and formulate trustworthy relationships and iron-clad legal contracts that protect your firm, but also help to benefit the other firm as well. Everyone likes a win-win situation, so it is best to focus on what you have to offer them, and see what they have to offer you. Global innovation will continue to be the way to go.