

"A Through Put for Innovation"

By: Vincent A. D'Elia

Looking at the progress of innovations in products and services over the last two decades, I can only be amazed at where we were twenty years ago and where we are now, in terms of what we use as consumers. Computers have become a way of life fostering great advances in technology which has opened many other avenues for innovation. Digitally enhanced flat screen televisions replace older bulky projection screens, I-pods that carry an entire music library in the palm of your hand, Two inch Flash-Drives that have 1000 times more memory than the UNIVAC of the sixties, digital cameras that require no film or processing, GPS tracking systems, portable spas, jet showers and EZ Pass. Every aspect of our lives has been touched by innovation.



As the Regional Director of the Bergen County Small Business Development Center at Bergen Community College, I come into contact with entrepreneurs of innovation on a frequent basis. It is thought that the lack of access to capital has always been the biggest problem for entrepreneurs and existing small businesses. However, I believe more importantly, that the lack of knowledge of the entrepreneurial and business process is without a doubt, the biggest problem.

After all, where does one go to learn how to start a business? This area would also entail knowledge of formation and liability issues, financing and credit construction, as well as market research and marketing strategies. Until recently, there was no formal education available that addressed these critical entrepreneurial issues and the myths that surround them. Our statewide organization, The New Jersey Small Business Development Center has developed, branded and offered through-out community colleges and SBDC Centers an Entrepreneurial Certificate Program, consisting of seven workshops on critical business start-up issues. These workshops are designed and administered by practitioners in order to dispel the myths surrounding entrepreneurship and raise the level of awareness of the entrepreneurial process. They can be examined at: www.njsbdc.com.

The federal government also supports innovation through their Small Business Innovative Research Program (SBIR). This is a highly competitive program that encourages small business to explore their technological potential and provides the incentive to profit from its commercialization by offering grant money through the phases of development. By including qualified small businesses in the nation's R&D arena, high-tech innovation is stimulated and the United States gains entrepreneurial spirit as it meets its specific research and development needs. SBIR targets the entrepreneurial sector because that is where most innovation and innovators thrive. SBIR funds the critical startup and development stages and it encourages the commercialization of the technology, product, or service as long as it meets SBIR criteria. Since its enactment in 1982 SBIR has helped thousands of small businesses to compete for federal research and development funds. These innovative contributions have enhanced the nation's defense, protected our environment, advanced health care, and improved our ability to manage information and manipulate data. For further information go to: www.sba.gov/SBIR - or - www.sbirworld.com.

In considering the launch of a new product idea, there are certain criteria that need to exist. There may be similar, new or unique innovations already protected and/or in public use. You can do a patent search on your own at the library or on line at the United States Patent and Trademark Office (www.uspto.gov/patft). Besides the catch all that the innovation be *new and unique*, it should also fulfill a market *need* such as being a solution to a problem, a faster, safer, cheaper or easier way to perform a function or a new leisure activity (such as snowboarding).

Furthermore, one must understand the market need and how it delivers satisfaction. You will need to conduct your own market survey to determine the demand for the product and what a willing consumer would pay for it. Equally important is to understand how long the need will exist and any alternate ways that this need is satisfied. The market demand must be large enough for the innovation to be profitable. This will require market demographics and surveys that would qualify and quantify the number of customers, what they would be willing to pay and how frequently they would purchase. Initially, you should go to the library and thoroughly research the industry to find out if there are; existing products, channels of distribution in place and the size of the market. Several resources for this information are: *Standard and Poors Industry Surveys*, for industry specific information; *Encyclopedia of Associations* to find contacts within an industry or to target a consumer market within an association and *Market Share Reporter*, to find the monetary value of a market and the top five companies that service that market.

The price offering must be affordable and still have margins that generate a profit to all the entities involved in the manufacturing, distribution and marketing of the innovation, including the innovator. This means the real calculation of start-up production, administration, packaging, selling, shipping and service costs inherent with the innovation. The customer's perception of the value will strongly influence the price and thus the market share in accordance with affordability. The driver of the motivation of everyone within the distribution chain of the innovation will be the profit. Without profit, it will not be sold.

George Udell from Southwest Missouri State University in Springfield, Missouri suggests using a thirty-three point evaluation criteria for the marketability of innovations. This creates an inclusive check list to assess the viability of the innovation. These points are:

Legality - What are the laws and regulation affecting the innovation and what are the applicable industry or consumer standards?

Safety- What are the potential hazards and side affects and the OSHA requirements for production along with the cost of product liability insurance?

Environmental- Is the innovation and/or the production process environmental friendly and conform to current EPA standards?

Society- Does the innovation benefit the general welfare of society?

Functionality- Will it fulfill the intended purpose?

Production- Are there special production requirements in terms of process, facility and/or capital equipment?

Development Stages- Has the innovation gone from conception to development to tested and proven stages?

Investment Costs- Have you analyzed the relationship of investment to sales potential with respect to return on investment?

Payback Period- How long will it take to re-coup the initial investment?

Profitability- To what extent or percentage, will revenue exceed direct and indirect

costs?

Market Research- What information is needed and what will these resources cost?

Production Research- What is the calculated start-up costs to begin production?

Market Potential- Is the market local, regional, national or global?

Sales Potential- Are the sales repetitive or one time, and what is projected volume?

Demand Trend- Will the demand grow, stabilize or decline if others enter the market?

Demand Stability- Will demand be cyclical, will there be seasonality or yearly fluctuations?

Product Life-Cycle- Will the life cycle be long enough to recover fixed costs and then some?

Product Line Potential- Will there be multiple styles and pricing. Can there be spin offs creating a line of products?

Compatibility- Is the innovation compatible with existing attitudes, other products and other uses?

Education- Will the innovation user need training for the proper use of the product?

Needs Satisfaction- Does the innovation satisfy physical and psychological needs?

Dependence- Is there a dependence on other product that may negatively impact the innovations sales?

Visibility- Are the advantages and the benefits of the innovation visible to the target markets?

Promotion Requirements- What resources and efforts will it take and what will it cost to generate market acceptance?

Distribution- How difficult will it be to establish a distribution chain and what will it cost if there isn't one already in place?

Serviceability- What will be the availability of parts and skill sets needed to service and/or repair the innovation?

Product Appearance- Is there a visual appeal of the product when compared to a competitive product and/or the consumer's preference?

Functionality- Is the function perceived as better than the competitions and/or substitutes?

Price Point- Is the price relative. If it is higher, is the enhanced value obvious?

Current Competition- What will be the response of the existing competition to your new innovation/product?

New Competition- Will the innovation cause new entrants into the market place?

Durability- Will the product last relative to the competition's product and the consumers expectations?

Protection- Is the potential for protection solid and defensible if challenged?

With all of the above taken into consideration, the innovator must decide how best to capitalize on their innovation. The major factors of consideration will depend on time constraints and required investment capital. The three most prominent strategies for commercialization are:

The *outright sale* of the innovation to an interested party which would give total ownership and control to the purchaser for a fixed sum of monies payable over time or in one lump sum.

Licensing the rights to the innovation, which means that the purchaser can use the innovation for as long as contracted for. However the ownership of the innovation remains

property of the innovator. If the licensing is not exclusive, then two or more parties may license the innovation.

Finally, the innovator may want to set up *manufacturing*, marketing and sales of the innovation directly to customers. Whereas, this is the most costly of strategies for commercialization, it historically yields the largest margins and the biggest egos. This stratagem insures the innovator has the most control of the distribution and quality of the innovation.

Whatever strategy is chosen by the innovator, it will require protection of the rights to the innovation by filing for a patent or copyright, and initiating a Confidentiality Agreement to be signed by anyone involved in discussion or solicitation of the innovation. To this extent it is important to have a patent and contract attorney on board. During the last twenty years of consulting with entrepreneurs of innovation, I realized that many believe their innovation can propel the formation of an IPO. They do not realize the extensive amount of man hours and costly professional resources necessary from start-up to fruition. Usually it takes several negative experiences or setbacks for them to grasp the realities of their situation. While their innovation may fulfill a market need, a start-up delivery system could be cost prohibitive. It is best to seek professional advice early on to set goals and map out a course of action.

Vincent A. D'Elia was the CEO of DEWPRO Textiles, an institutional and industrial textile products manufacturer, for 16 years. For eight years thereafter, he was an independent management consultant to small and mid-sized entrepreneurial businesses. He specializes in operational and financial analysis, trouble-shooting, re-organization and problem-solving. In 1994 he joined the Bergen Small Business Development Center (SBDC) as the Assistant Regional Director and became the Regional Director in 1998. Under the GI Bill, he earned an Associate in Arts from New York City Community College, a Bachelor of Science in Management from Long Island University, a Certificate in Financial Counseling from New York University, and his Masters of Business Administration at Ramapo College of New Jersey. He is the recipient of the U. S. Small Business Administration, special achievement award in 2002, for his participation in assisting distressed businesses of the Sept 11th tragedy. He has been honored in NJ Biz, "Who's Who, NJ Business Leaders" for 2001 and 2002, and the recipient of the "NJSBDC Star Performer Award" in 2001. Currently he is the Regional Director of the Bergen Small Business Development Center located at Bergen Community College, Ciarco Learning Center in Hackensack, NJ.

For more information call 201.489.8670.

The information contained herein has been collected over the years from the archives of the Small Business Development Centers Network dating back to 1992, the authors remain anonymous. The information content to this day still remains as best practice to aspiring innovators and those seeking to commercialize their innovations It is within this collaborative effort that I wish to share this information with this forum. Thank you for this opportunity. I hope this information proves to be worthwhile and creates value among your readership. Vincent A. D'Elia, Regional Director, Bergen Small Business Development Center @ Bergen Community College 11.15.07