

My Experiment with Innovation to Market. (I₂M)

Dr. C.B. Vijaya Vittala, Shylaja. H. Vittala

Palasandra_vittala@yahoo.com, shylaja_vittala@sify.com

Dharma Technologies, 1st cross, 60ft road, Sapthagiri Extn., Tumkur- 572102, Karnataka., India

Introduction:

There are several mechanisms are being tried to support innovator for their innovations at individual level through competition, awarding, providing monitoring support etc. building business out of innovation and sustaining the business needs altogether different mind set at all levels of providing financial support to mentoring. Secondly the mentors need to undergo such experience so that mentoring becomes meaning full. In this direction author as carried out experiment of building business out of innovation and part and parcel of innovator/ business. In this paper the methodology adopted and the out come of the work during 2004-2009 is explained. The experiment has provided the insight to mechanism of support to be provided and the dependency of the support on the phases of business and how to withdraw the mentor etc.

Background:

Off recently innovation has become fashionable word with every one. Today every organization is focused on this to improve the finance of the organization. Organized innovations i.e. attempted in organized organization is supported, nurtured until the task is completed. For this task companies will provide men, material, money and market. As Anil K. Gupta Puts there is one more type of innovation takes place at common man, housewife, rickshaw puller, blacksmith, farmer etc aptly named as grassroots. They innovate for their survival and not for their financial improvements. (Anil K. Gupta Brilliant inventors in India are going through unrewarded monetarily for their breakthroughs, Harvard business online, May 12, 2009).

Off late several organizations has started providing support such individuals. Government is supporting through TePP fund (<http://www.dsir.gov.in/>). They operate through outreach cell to provide necessary support. Further National Innovation Foundation (NIF) has been set up by the Government of India to provide support for grassroots especially. Apart from these other NGO's are doing work to provide support to individual innovators.

Success rate of converting idea to business from such support is very small. This may be due to non availability of fund, technology support, mentoring support etc. The author has worked with NIF at various capacities and nurtured several innovations and innovators. However success rate of converting innovation to successful business is very small as there is no rule that this method of support will work. In several cases innovations could not be supported to the extent required to bring innovation to market. Several bottle necks are faced: non availability of fund timely,

expectations of innovators are different than the support structure requirement, more time in logistic support rather than actual product progress etc.

Some of the methods adopted to nurture innovations are:

1. Product development activity
 - a. Teachers are involved in development of product
 - b. Students are involved in development of product
 - c. Technocrats on honorary arrangement are used for product development
 - d. Entrepreneurs are involved

2. Marketing activity
 - a. Innovator to entrepreneur
 - b. Selling of innovation to new entrepreneur

In the above cases success rate was low and at some times frustrating. In most of the cases innovator / entrepreneurs give up in mid way due to lack of cooperation among them or the progress was not in the right direction etc. Most of the manpower available for supporting such innovations is not experienced the cycle of innovation to market as may be the one of the reason for discomfort among innovators and the frustration feeling. This prompted the author to take plunge in to this work for understanding from the beginning to end and feel the experience and provide the method of support. As the proverb says that to learn to swim one should jump in to the water. This will result in understanding the pain of innovation, innovators and market dynamics to bring out innovations to market. Converting innovation to market is very complex work requires handling of emotions, money, materials, frustrations and success.

Journey begins:

During middle of 2004 author (Dr. C.B. Vijaya Vittala) decided that experiment is needed to understand the entire process of the innovation to market (I₂M) so that one can learn to support many in future with increased success rate. The experiment will involve innovator and any failure will affect the innovators life very much. Under such circumstances selection of innovator must be very important and innovator must be able to cooperate during the entire period and follow all process as required by the business. Hunt for the innovator started. Frustration started building up as no one will be willing to encounter the process. At this junction my wife shylaja H. Vittala innovator herself come forward to participate in the process of learning. She agreed to take up the challenge. Her offer was very good but to support her I need to quit the organization in which I was working (NIF) due to conflict of interest. She argued that any failure will not affect our family as a bread earner I can support the failure and further no blame will come to us as it is between husband and wife. Success if any will be achieved is bonus for both of us. This will be win- win situation for my wife and me supporting her innovation and also understanding the process of transformation. It was decided to start the work from home town as we will get support from relatives / friends. Accordingly I have arranged my working place at SSIT tumkur and moved to Tumkur from Guwahati by April 2005.

Setting up of the company:

First step in this direction Shylaj H. Vittala purchased innovation of Mr. Udhab Bharali on areca nut peeling. This innovation is selected on the basis of safe play. If we succeeded in bringing this to market is good otherwise we will have machine to peel in our farm even though quality is poor.

The innovation was raw and needed many modifications before adopting by the farmers. Market trails were taken on this machine and market feedback was provided to Mr. Udhabharali for improvements. In the mean time shylaja H. Vittala set p a proprietorship company Dharma Technologies at Tumkur. Taken up necessary trade license from municipally /Registration at DIC as SSI / TIN Number from sales tax departments / bank account from SBI.

Improved model was funded by her and once again the same was taken to market and its performance was analyzed. The market report was rude shock to Shylaja. The machine was not accepted in the market. The main reason was that it can not handle all sizes and damage to kernels was very high. The feeding method of nuts is to be improved to improve the performance. When the feed back was given to the innovator, innovator become silent. Communication with the innovator stopped. Investing on innovator further was risky as tumkur is far away from lakhimpur. Innovator could not understand the market need properly. Our first experiment with the I₂M is a failure. Frustration was building up among us resulted in emotional failure. In spite of bad feed back silver lining was that there is need for a machine to peel. This provided us the strength and shylaja decided that she will invest further forty thousand on the machine so that improved machine will be developed. To set up the fabrication shop investment needed was about one lack in fixed investment and another one lack for next one year's sustenance of the shop. It is agreed that we will use the road side workshop for proposed prototype and pay the shop owner according to the work. Shop owner was provided good service initially and later on used to work only on spare time. The process has taken long time. Frustration in not coming out with the market acceptable product was very high. Shylaja has invested more than one lack in the entire process. At certain times emotions were broken down between us. Our family was in turmoil. To some extent we reconciled our self to try once more in our effort. Local fare is organized during jan-feb every year in near by town called kayathasandra. We took decision to participate in this fare and exhibit the machine in the year 2006. We exhibited our machine at fare and it was main attraction in the fare. We received more enquiry from the farmers and farmers are willing to provide areca nut for trials. The number of visitors to our stall and the enquiry provided necessary boost to shylaja and me to continue further. Feed back obtained in the process was very much use full for further development. After one and half year still the product was not there!

Frustration:

The entire process of getting it done at some one place and the cost of transportation, time etc has taken its toll. Shylaja and my self were loosing hope. Further investment was needed for making it beautiful so that one can get attracted toward it. Safety arrangements to be incorporated in to the machine so that machine is safe to use. Family relationship were at lowest level. There was no single day during early 2006 we have not thought of closing the entire process. No one was willing to help. Family members were of the opinion that we need to closedown all and concentrate on my work of teaching only so that one can live happily. Our children were suffering. They were denied of parental bonding as both of us bonded to business. Our health both physical and mental is important than the business. We closed all our activities for fifteen days and simply we were analyzing what went wrong. Why we are unable to provide market acceptable solution as there is demand for it.

The main drawbacks are;

1. Working from some once place are taking up more time for any development.
2. Our dependency made us paralyzed and our understanding of the market is low.
3. To develop machine there is independent place is required with all facilities.
4. We do not have complete market knowledge of areca nut.

We adopted following strategies:

1. Visiting arecanut processing units and find out the requirements.
2. Setting up separate fabrication shop with two workers.

We made extensive visit to bhimasamudra place areca nut is processed in very large quantity. Our visit provided insight in to the entire gambit of processing and trading. The strategies were different that at village level. There is about eight grades of areca nut is processed / traded. After care full study it was found that our machine will be providing the areca nut of grade two or three. There is 30 to 40 percent of areca nut is unprocessed due to non availability of labor and they will be traded as gorubulu. There are chali / dry areca nut. There is vide scope for processing machine for areca nut in all segments.

This analysis provided us somehope that we can place our machine in segment three so that waste areca nut can be processed as at present it is not being processed. We need to concentrate with traders as they are controlling market. If our machine is accepted by traders then farmers will accept the machine.

We will develop fourth prototype adopting modifications in our own fabrication shop. Finance was arranged with the bank for equipments and tools. I stopped smoking for arranging finance to pay salary for helper. Shylaja arranged finance of forty thousand for materials and payment for welder from her own savings. We made arrangement for rent for building for one year and workers payment for next one year. All this we did in the middle of 2006.

Turning point

Due to our exposure in the fare one person approached that he needs onion peeling machine and slicing machine and provided advance for this. This was the first business transaction that has been done by Dharma Technologies. During the development of the machines shylaja came out with idea that why onion peeling machine be converted to clean the gorabulu (waste areca nut). Out put quality of the areca nut so excellent and the machine has reduced the processing time drastically. Traders readily adopted the machine. Soon she sold several machines with in two months. All her anxiety, agony has vanished. She could recover her investment back. Bank loan has been cleared and all hand loans are cleared. Now she is willing to work and her confidence was back. At this junction I started to withdraw my self slowly. All these happened during 2006- and early part of 2007

IPR dilemma

During this phase the development of Gorubulu polisher put all of us in conflict. The design is so simple that any body can copy it very easily. The machine was so simple and adoptable has created trouble to Shylaja Vittala. Once she wanted to file for patent and then do the business. If she delayed the release her financial problem will get aggravated further and there is chance that she may wind up the business. As a mentor I have suggested that forget **IPR** bother about **ROTI** only. Concentrate on quality and service to beat the copycats. She went with my suggestion to release the machine to the market with out IPR protection.

Learning the business

She started learning about the components how to procure and where to procure. She moved to market collected the information. She learned the tricks of the trades very quickly. Workers started to discuss with her regarding the developments etc. each machine that went out of the factory with improvements as directed by shylaja. I was not involved much in decision but I was monitoring the progress. She realized soon that continuous improvement is not needed. Now she needs standardized product. Initial machines were hand painted. She went for powder coated for next machine and kept the color combinations as trademarks of Dharma technologies. My role was limited to providing suggestion but all decision were taken up by her. By the middle of 2007 she was already moved to her own building and sold more than 30 machines and started investing in developing new products. All her earlier clients were provided with new machines after taking back her old machine. This gesture helped her to get more orders from the same traders and also good will in the market. Simultaneously at the market people started copying our machine. Three different version of the machine is available. One vender started manufacturing the machine similar to hers in all aspects. This is due to her inability to supply the machine in the initial stages. At present her machine stand up in the market for the quality and the service she provides to the customer.

Beginning of 2008 I started withdrawing completely from her business activity. To isolate myself from the business I moved to Bangalore on new assignment. This made her slightly vulnerable in the beginning but slowly she took the complete control of the business. She started controlling the inventory of materials, learned about the components, hold discussion with vendors to reduce the supply cost etc. During 2008 my role was only as consultant when ever she asks I provided the inputs. I.e. I have stopped taking up initiatives my self completely. This phase has helped her to mould her self completely as business women. It is important that she has taken care of house and children all through these phases. During this phase she came out with sorter for areca nut, challi peeling machine, bhakli separator etc. During 2008 sales of gorubulu polisher is slowed down a bit but other assignments she has taken up for food processing sector was made her busy. She has cleared the bank loan during 2008 and added additional equipments for fabrication of SS.

During this phase she met with accident during one of the demonstration and her finger tips were chopped off. This made her to take up long aviated vacation. This accident also contributed in less business to some extent. She was out from business for about three months. During this period she came out with idea of instant rasm and the same has been supported by TePP for trial production and market.

Until early part of 2009 she has not taken up any promotional program for the products marketing. All the achievement so far done is by the user's feedback only. She analyzed the outcome of the business during 2008 and based on this she realized that she need to go for promotional program like advertising / taking the machines to the users places. Accordingly ten days tour was planned and exhibited the machines at all major areca processing centers. Result was very encouraging that in the first week of the exhibition it self she has consolidated the business so that her unit is completely busy for next three months.

Now the time has come to disassociate completely from the Sylajas business formally and maintaining visitor's status only.

Lessons We have learnt in these five years:

1. Innovation to market is very tedious process requires emotional bonding.
2. Innovations to market needs mothers and fathers care form the mentors to achieve the success.
3. Finance should be in the form of soft laon returnable on success.
 - a. As a grant the seriousness in further development will not be their in most of the innovators.
4. Market acceptable prototype is needed and developed independent of the innovator to succeed in the market.
 - a. This is very much needed as innovators focus will be different and they will resist any change and results in failure to business.

5. At least innovation to market has four distinct phases namely –
 - a. Initial analysis phase, Understanding market requirement
 - b. Prototype development phase.
 - i. At least as a thumb rule requires four to five times the cost of machine to be released to the market.
 - ii. Functionality, safety and ergonomics plays important role for the success of the product.
 - iii. The product should be adoptable to the requirement in the field.
 - iv. Manufacturing plan should be developed according to local conditions.
 - v. All the components should be easily maintained by the unskilled workers.
 - vi. Standardization of the product is a must. Use of standard available parts from market is very important as this will reduce the manufacturing cost.
6. The product should have in built quality and should deliver more than what is claimed.
7. Product development should be carried out in specialized centre dedicated for the purpose when innovator is involved in business.
8. Product development works should not be carried out at colleges, existing workshops doing other business, with honorary product developers as delay will build frustration among innovators or entrepreneurs. This will affect the business to large extent.
9. Mentor should be acquainted with all aspects of the process involved in manufacturing, designing and should have good market knowledge especially local market where the business is being setup. Mentor should spend some time in knowing the local market. Other wise his advises to the business will be different and results in failure.
10. Necessary IPR management strategies should be adopted other wise they may result in delay in release of product to market but this may adversely effect the innovators survival.
11. Manufacturing capacity to increase the production on request should be thought of while setting up the fabrication facility.
12. Complete in-house testing should be done before taking it to the market this will directly affects the business as well as innovators / entrepreneur's mental health.
13. Only One agency should support. Multiple agencies will create trouble to innovator what to do.
14. Support should be in three fronts
 - a. Finance
 - i. Finance should be provided for at least in four to five years. This requires for innovators / entrepreneurs lively hood and also the requirement of the product.
 - ii. Finance should be provided at different level
 1. Prototype phase
 2. Trial phase
 3. Marketing phase
 4. Production phase.

- a. Up to marketing phase it should clubbed as capital investment and during production phase it should be on the basis of OD/ working capital
- iii. Requisite finance should be decided at the beginning only. Necessary sanction should accorded initially. As per the mentors recommendations it should be disbursed to the business.
- b. Market access:
 - i. The product and innovator should be sent to fairs/ exhibitions/ conferences.
 - 1. This is absolutely necessary to release mental tensions and divert the minds so that they will come with new strategy to improve the business.
- c. Mentoring
 - i. Mentor should have stake in the business or he /she should be paid for the service. Honorary mentors will not maintain same tempo as is in the beginning and innovator will get frustrated for non availability of the mentor at the requisite time.
 - ii. Mentor and innovator/ entrepreneurs will be jointly run the business initially with the exit plan clearly known to each other.
 - iii. Mentors involvement initially will be very high. For initially one to two years form the start and slowly mentor will detach from the activity. This should be similar to moon cycle. Full moon day to new moon day.

Acknowledgement:

Till this day I am working as her mentor and as consultant of Dharma Technologies. During this experimentation I have disassociated from NIF as there should not be any conflict of interest. I take this opportunity to thank Prof. Dr. Anil.K. Gupta, Vice chairperson, NIF who inspired me to think in these lines, Dr. K.A. Krishnamurthy, Principal, SSIT, Tumkur for his support during crucial phase of the experimentation.

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All the views expressed here in this article is of authors only and will not reflect views of any organizations.

Referances:

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Proposed Journey for Innovation to Market.

Journey of innovation to market (I₂M)



