Commercialization Strategies and the need for development of "Market Place for Ideas"

Waleed Khan Afridi*

Each year individuals and small businesses conceive thousands of ideas or concepts for new products. Few of these new product ideas, however, are ever developed and brought into the marketplace. Consequently, few inventors ever realize any financial gain of their inventions. There are a variety of reasons why so few new product ideas progress to ultimate market introduction. A significant barrier is the financial expense relative to new product development which includes evaluation of marketability, patentability, and technical feasibility. Additional expense is incurred relative to product design, proprietary protection of the intellectual property encompassing the product, prototype development, etc. Further, few inventors pursue development of their new product ideas because completion of the above mentioned steps does not guarantee success in the marketplace. Only the "best" new products are often successful.

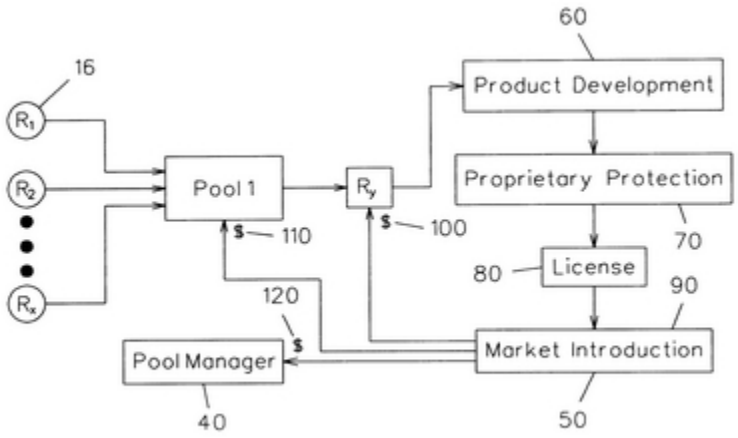
Therefore, it is desirable to have a method for new product development which increases the expectation of financial return and decreases the cost of product development to individual inventors. Further, it is desirable to have a method for new product development which provides financial return to all inventor participants even if only a Single new product idea progresses to market introduction. Often one or more pools or funds are established into which ideas, concepts, or partially developed products are registered by individual or small

* Waleed Khan Afridi, PhD research Scholar, Assistant Professor & Director
RANA Institute of Higher Studies, Kabul, Afghanistan.
Email: waleedafr@yahoo.com

business registrants. Each pool receives new product ideas related to a particular technology area or patent classification. When a predetermined number of new product registrations have been received within a pool, the marketability, patentability, and technical feasibility are evaluated by a pool manager and at least one idea is selected, based on the evaluation, for product development and market introduction. Product development is funded by new idea registration.

The selected registration is developed through design engineering so as to optimally fulfill its utility function and market niche. When the selected registration has been fully developed into a viable new product, the intellectual property encompassing the invention may be legally protected by filing and prosecuting one or more United States or foreign patents. Upon issuance of a patent relative to the selected registration, the right to make, use, sell, and/or distribute the product encompassed by the patent is licensed to a manufacturer for ultimate market introduction. The pool manager undertakes efforts to identify and market the new product to potential licensees. The rights granted by the license are given to a manufacturer in exchange for royalties on sales of the new product during the term of the patent. A portion of the royalties generated through product sales is distributed first to the owner of the patent covering the selected new product registration. A second portion of the royalties that is smaller than the first portion is equally distributed to the pool registrants whose new product ideas were not selected for further development and market introduction. A third portion of the royalties that is smaller than the first portion is distributed to the manager of the pool. Thus, while the party who initially registered the new product idea receives the largest portion of eventual royalty revenues, each registrant in the pool receives a portion as well.

Flow chart of the Registrations of Ideas leading to product development:



But the above method is employed mostly in advance or we may say developed countries where as the under developed countries often do not possess proper arrangement and regulations for registration of ideas. This is so, because they do not have the desired level of interest and due to many other reasons they are unable to identify some proper dimensions for it. The Governments in developing countries lack the desirable level of expertise for proper analysis and understand of the importance of ideas and their trading in the market place. And secondly they do not have proper markets for selling new and advanced ideas. Most of the youth and small size, start-up innovators or business firms usually have little experience in the markets for which their innovations are most appropriate, and they have at most two or three technologies at the stage of potential market introduction. For these firms, a key management challenge is how to translate promising ideas into a stream of economic returns for their founders, investors and employees. In other

words, the main problem is not so much invention but *commercialization* of ideas and the strategies needed for them.

Every year a number of graduates, firms and even start-up firms tend to produce and generate new and advance ideas but they often are unable to sell or introduce them in the open markets. Resultantly they either sell those ideas to firms that are operating either outside the home country or then do not belong to the same environment. Even sometimes a number of ideas are not rewarded appropriately and the inventors are not given any particular share of the revenue generated from its idea. To understand the role of markets for ideas, consider the experience of Robert Kearns, the independent inventor of the intermittent windshield wiper in the early 1960s.Unable to commercialize on his own, Kearns approached senior engineers at the Ford Motor Company, disclosing both the operating principles and functionality of his invention. After some negotiation, Ford rejected a licensing agreement with Kearns, but introduced a similar technology to the market shortly thereafter. For over 20 years, Ford and other automakers declined to pay Kearns royalties on this invention; it was not until the 1990s that Kearns successfully upheld his patent and extracted a portion of the economic returns (Seabrook, 1994). In this case, the absence of a market for ideas reduced Kearns' ability to earn returns on his invention and, by setting a precedent, eliminated the incentives for start-up innovation in the automotive technology sector.

Product Market and the Market Place for Ideas: A comparison

In general, product markets consist of those firms and organizations which produce something tangible or in tangible and offer them for sale. Those firms have vested money for the sake of production and have accumulated financial, human resources, and technological resources as

well to remain in competition. Further, the high risks are always involved in making huge investments and even sometimes expired investment costs can lead the businesses to default. But most of the small firms have limited resources and they are often unable to consider many strategic options, instead they pursue small number of strategic options and that too without losing effectiveness in delivering consumer value (Bhide, 2000; Veugelers and Cassiman, 1999). Firms,

Huge investments are not necessary for selling ideas into marketplace for ideas. In contrast an analysis is needed for the benefits that can be availed from the Marketplace for ideas. Conversely, no physical goods are required; no physical market is required but a buyer and a seller only. No investments are required to be made in terms of inventory, or then something physical but instead some research and development costs can be considered. Availability of markets for ideas provides incentives to develop innovations reinforcing the value of current technology. For example, companies such as Intel spend considerable resources explicitly encouraging the external development of complementary technology (Gawer and Cusumano, 2002)

Commercialization Strategies for the development and Selling of Ideas:

The first and primary phase for the commercialization of ideas is to provide it the relative protection of copyrights and then establish a proper procedure for accessing that idea, its royalty allocation and a proper share of the inventor after utilization. Intellectual Property Organizations should provide visible and lucid guidelines of registering an idea produced, either by an individual, group of individuals, or then an organization and the benefits they can get from the registration of those ideas. After registering various ideas regarding products, services the

same ideas should be sold in the open market, called as market place for ideas. It is an idea that tends to generate revenue and not a product or service, as a tangible or intangible product is basically the prototyped and developed form of an idea. Thus if it is a bit difficult to produce some tangible goods then developing and selling of ideas can be fruitful.

The Governments need to encourage the firms to produce new ideas in different fields, such as Technology, Engineering Designs, Commercial Goods, Durable Goods, Production Processes, Services Technologies, Material Goods and all the service organizations to conduct research and development activities and produce ideas that can surely lead to some economic activities and investments.

Another focus, for selling ideas, should be on the Investors. In product market we often have a buyer and a seller, but in market place for ideas we have an inventor and an investor. These two components can join to form a market place for ideas. Encouraging investors to invest in ideas, if feasible, will encourage inventors independently and an additive advantage that society can get will be a boom in economic activities.

In the same way, we need to design a proper system in which all the registrants of ideas should get some rewards for their contribution in some way. After taking all those necessary measures then a response from the inventors can be expected. As the main idea behind the selling of an "Idea" is to make money.

References:

Aghion, P. and J. Tirole (1994), "The Management of Innovation," *Quarterly Journal of Economics*, 109 (4), pp. 1185-1210.

Aldrich, H. and C. Zimmer (1986), "Entrepreneurship through Social Networks," *The Art and Science of Entrepreneurship* eds. D.L. Sexton and R.W. Smilor: Cambridge (MA): Ballinger.

Anand, B.N. and T. Khanna (2000), "The Structure of Licensing Contracts," *Journal of Industrial Economics*, 48 (1), pp. 103-135.

Anton, J.J. and D.A. Yao (1994), "Expropriation and Inventions: Appropriable Rents in the Absence of Property Rights," *American Economic Review*, 84 (1), pp. 190- 209.

Anton, J.J. and D. Yao (1995), "Start-ups, Spin-offs, and Internal Projects," *Journal of Law Economics & Organization*, 11, pp. 362-378.

Aoki, M. (2000), "Information and Governance in the Silicon Valley Model," *Finance,Governance, and Competitiveness in Japan*, Oxford University Press.

Arora, A. (1995), "Licensing Tacit Knowledge: Intellectual Property Rights and the Market for Know-How," *Economics of Innovation & New Technology*, 4, pp. 41-59.

Arora, A. and A. Gambardella (1994), "The Changing Technology of Technological Change: General and Abstract Knowledge and the Division of Innovative Labour," *Research Policy*, 32, pp. 523-532.

Arora, A., Fosfuri, A., and A. Gambardella (2001), *Markets for Technology: The Economics of Innovation and Corporate Strategy*, Cambridge (MA): MIT.

Arrow, K.J. (1962), "Economic Welfare and the Allocation of Resources for Invention," in *The Rate and Direction of Inventive Activity*, Princeton: Princeton University Press, pp. 609-625.

Baker, G., R. Gibbons and K.J. Murphy (2002), "Relational Contracts and the Theory of the Firm," *Quarterly Journal of Economics*, 117 (1), pp. 39-84.

Baldwin, C. and K. Clark (1997), "Sun Wars: Competition within a Modular Cluster," in D.B. Yoffie (ed.), *Competing in the Age of Digital Convergence*, Harvard Business School Press.

Bhide, A. (2000), *The Origin and Evolution of New Businesses*, New York (NY): Oxford University Press.

BioWorld Publishing (1998), *Biotechnology State of the Industry Report 1998*, Atlanta (GA): BioWorld Publishing: 30

Black, B.S. and R.J. Gilson (1998), "Venture Capital and the Structure of Capital Markets: Banks versus Stock Markets," *Journal of Financial Economics*, 47, pp.243-277.

Blonigen, B.A., and C.T. Taylor (2000), "R&D Activity and Acquisitions in High Technology Industries: Evidence from the U.S. Electronics Industry," *Journal of Industrial Economics*, 48, pp. 47-70.

Bunnell, D. and A. Brate (2000), *Making the Cisco Connection*, Wiley Publishers, Chapters 6 and 7.

Charles River Associates (1999), *A Stand-Up Double: The Story of American Internet Corporation*, Boston (MA): VIDEO.

Chesbrough, H. and D. Teece (1996), "When Is Virtual Virtuous: Organizing for Innovation," *Harvard Business Review*, 74, pp. 65-74.

Christensen, C.M. (1997), *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*, Boston, MA: Harvard Business School Press.

"Cisco Buys Producer of Chips for Networks," *New York Times*, February 17, 2000.

Cohen, W.M. and D.A. Levinthal (1989), "Innovation and Learning: The Two Faces of R&D," *Economic Journal*, 99 (397), pp. 569-596.

Cusumano, M.A. and B. Yoffie (1998), *Competing on Internet Time: Lessons from Nestcape and Its battle with Microsoft*, Free Press.

Evans, D. and R. Schmalensee (2002), "Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries," in A.B. Jaffe,

J. Lerner and S. Stern (eds.), *Innovation Policy and the Economy*, Vol. 2, pp. 1-50.

Foster, R.N. (1986), *Innovation: The Attacker's Advantage*, New York, NY: Summit Books.

Gans, J.S., D. Hsu and S. Stern (2002), "When Does Start-Up Innovation Spur the Gale of Creative Destruction?" *RAND Journal of Economics*, forthcoming.

Gans, J.S. and S. Stern (2000a), "Incumbency and R&D Incentives: Licensing the Gale of Creative Destruction," *Journal of Economics and Management Strategy*, 9 (4), pp. 485-511.

Gans, J.S. and S. Stern (2000b), "When does Funding Small Firms Bear Fruit? Evidence from the SBIR Program," *Working Paper*, No.7877, NBER.

Gawer, A. and M. Cusumano (2002), *Platform Leadership: How Intel, Palm, Cisco and Others Drive Industry Innovation*, Cambridge (MA): Harvard Business School Press.

Gompers, P. (1995), "Optimal Investments, Monitoring, and the Staging of Venture Capital," *Journal of Finance*, 50, pp. 1451-1490.31

Greif, A. (1994), "Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies," *Journal of Political Economy*, 102 (5), pp. 912-950.

Hall, S.S. (1988), *Invisible Frontiers: The Race to Synthesize a Human Gene*, London: Sidgwick & Jackson.

Hart, O. (1995), *Firms, Contracts and Financial Structure*, Oxford: Oxford University Press.

Henderson, R. and K. Clark (1990), "Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms," *Administrative Science Quarterly*, 35, pp. 9-30.

Hsu, D. (2001), "Do Entrepreneurs Pay to Access More Experienced Venture Capitalists?" *mimeo*, MIT Sloan School of Management.

Hsu, D. (2002), "Do Venture Capitalists Affect Commercialization Strategies at Startups?" *mimeo*, MIT Sloan School of Management.

Jensen, R. (1992), "Dynamic Patent Licensing," *International Journal of Industrial Organization*, 10 (3), pp. 349-368.

Kamien, M. (1992), "Patent Licensing," in R.J. Aumann and S. Hart (eds.), *Handbook of Game Theory with Economic Applications*, Volume 1, Amsterdam: North- Holland, pp. 331-354.

Kamien, M. and Y. Tauman (1986), "Fees versus Royalties and the Private Value of a Patent," *Quarterly Journal of Economics*, 101, pp. 471-491.

Katz, M.L. and C. Shapiro (1985), "On the Licensing of Innovation," *RAND Journal of Economics*, 16 (4), pp. 504-520.

Lamoreaux, N. and K. Sokoloff (1999), "Inventive Activity and the Market for Technology in the United States, 1840-1920," *Working Paper*, No. 7107, NBER.

Lerner, Josh, and Paul Gompers. *The Money of Invention: How Venture Capital Creates New Wealth*, Boston (MA): Harvard Business School Press

Mowery, D.C. et al, (2001), "The Growth of patenting and Licensing by US Universities: An Assessment of the Effects of the Bayh-Dole Act of 1980," *Research Policy* 30 (1), pp. 99-119.

Oxley, J. (1997), "Appropriability Hazards and Governance in Strategic Alliances: A Transactions Cost Approach," *Journal of Law Economics and Organization*, pp. 387-409.

Pisano, G. (1991), "The Governance of Innovation: Vertical Integration and Collaborative Arrangements in the Biotechnology Industry," *Research Policy*, 20, pp. 37-249. 32

Pisano. G. and P. Mang (1993), "Collaborative Product Development and the Market for Know-How: Strategies and Structures in the Biotechnology Industry," in R.S Rosenbloom and R.A. Burgelman (eds.), *Research on Technological Innovation, Management, and Policy*, Vol. 5, Greenwich (CT): JAI Press.

Pisano, G., W. Shan and D. Teece (1988), "Joint Ventures and Collaboration in the Biotechnology Industry," in D. Mowery (ed.), *International Collaborative Ventures in US Manufacturing*, Cambridge (MA): Ballinger Press.

Roberts, E.B. (1991), *Entrepreneurs in High Technology*, New York (NY): Oxford University Press.

Roberts, E.B. and C.A. Berry (1985), "Entering New Businesses: Selecting Strategies for Success," *Sloan Management Review*.

Robinson, D. and T. Stuart (2000), "Network Effects in the Governance of Strategic Alliances in Biotechnology," *mimeo*, University of Chicago GSB.

Rosenberg, N. (1990), "Why Do Firms Do Basic Research (with Their Own Money)?," *Research Policy,* 19(2), pp. 165-174.

Saracho, A.I. (2002), "Patent Licensing under Strategic Delegation," *Journal of Economics and Management Strategy*, 11 (2), pp.225-251.

Seabrook, J. (1994), "The Flash of Genius," *The New Yorker*, Jan 11, pp. 38-52.

Shane, S. (2001), "Technological Opportunities and New Firm Creation," *Management Science*, 47(2), pp. 205-220.

Shapiro, C. (2001), "Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting," in A.B. Jaffe, J. Lerner and S. Stern (eds.), *Innovation Policy and the Economy*, Vol. 1.

Smith, G.D. (1985), *The Anatomy of a Business Strategy: Bell, Western Electric, and the Origins of the American Telephone Industry*, Baltimore (MD): Johns Hopkins Press.

Stern, S. (1995), "Incentives and Focus in University and Industrial Research: The Case of Synthetic Insulin," in N. Rosenberg (ed.), *Sources of Medical Technology:Universities and Industry*, Washington (DC): National Academy Press, pp. 157-187.

Teece, D.J. (1986), "Profiting from Technological Innovation: Implications for Integration, Collaboration, Licensing, and Public Policy," *Research Policy,* 15, pp. 285-305.

Tripsas, M. (1997), "Unraveling the Process of Creative Destruction: Complementary Assets and Incumbent Survival in the Typesetter Industry," *Strategic Management Journal,* 18, pp. 119-142. 33

United States Office of Technology Assessment (1984), *Commercial Biotechnology: An International Analysis,* OTA-BA-218 Washington (DC): U.S. Congress.

Veugelers, R. and B. Cassiman (1999), "Make and Buy in Innovation Strategies: Evidence from Belgian Manufacturing Firms," *Research Policy,* 28, pp. 63-80.

Wang, X.H. (1998), "Fee versus Royalty Licensing in a Cournot Duopoly Model," *Economics Letters,* 60 (1), pp. 55-62.
Williamson, O.E. (1985), *The Economic Institutions of Capitalism,* New York: Free Press.

DeSouza, Glenn. "Royalty methods for intellectual property." Business Economics, v32, n2, p46(7), Apr. 199

DiEdoardo, Chris. "Professors' royalties protected by court." San Diego Daily Transcript, Oct. 6, 1997.