

Is the biotechnology industry recession proff?

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Biotecnology is an age old science although not formally recognized as so. Initially it was only applied to produce alcoholic beverages, cheese, citric acid and substances similar to these. However, this industry came to be recognized as a major industry only during the end of the twentieth century. Much of the coming explosion in the biotech industry can be attributed to one key event during the 1990's; that is the mapping of the human genome.

As this industry has grown; so we should have its benefits to the society. It has been estimated that more than 130 biotech drug products and vaccines approved by the U.S. Food and Drug Administration, mostly during the last few years, have helped millions of people around the world. Hundreds of medical diagnostic kits created through biotech research have not only provided early detection of many treatable diseases but also have kept blood supply free from the AIDS virus. Biotech foods with enhanced nutritional benefits, and improved safety conditions are coming up. Environmental biotech products are allowing effective clean up of hazardous wastes. Also, biotech methods involved in DNA fingerprinting are helping in solving of criminal cases and paternity suits. Biotech research has brought about improvement in many sectors, thereby allowing the manufacturing of products using cleaner and much efficient technologies using less energy, less water and producing fewer wastes. Also, about a three dozen companies are soon going to present cutting-edge Bio-terrorism related technologies to the officials at U.S. Departments of Defence and Health. This will cover such topics as chemical and biological pathogen detection systems, vaccine and human – antibody development, new injection devices, and treatments for anthrax and smallpox.

Biotech industry during the recent downturn:

Most of the economy has taken a downturn during the last year, but biotech kept growing. Patrick Kelly, Director of State government relations with the Biotechnology industry Organization or BIO states that

“It's not an exponential growth rate, but it's growing steadily, and it has been since the mid-90's.”

“I think the health is good,” agrees biotech observer David Deeds, Assistant professor of Management Policy and Entrepreneurship at the Weatherhead School of Management at case Western Reserve University in Cleveland.” With the downturn it's been a relatively quiet year, but there haven't been a lot of losses. It's not in a growth spurt, but it's solid.”

According to research by Ernst and Young, investments have left at least half of publicly traded firms in this industry with three years or more of operating cash, and also, Biotech stocks outperformed the hi-tech sector and broader markets. “The biotech and life sciences industry has benefited significantly from the mass exodus from the dot com industry,” says Kelly Patrick.

The overall faith in biotech extends beyond the public equity markets, according to BIO president Carl Feldbaum. “Venture capital investment actually has held steady over the last two years as funds have shifted from dot com industry and telecom investments into biotech. So far this year, privately held companies have raised \$1.1 billion, after raising \$ 3.7 billion last year and \$3.9 billion in 2000.” Thus, biotech would make it through the recession in decent shape, observes Jay Kizer, managing partner for the healthcare industry at executive search firm of Ray and Berndtson. “People are going to be concerned about their health Good health is not perceived as luxury.

Future potential:

There is tremendous potential for future growth in biotech industry. The average return on investment timeframe is 7 to 12 years and sometimes 15 years. There are some 350 medicines and vaccines in pipeline and many more are coming due to advancements in genomics, proteomics, bioinformatics, nanotechnology, stem cell research, and various other biotech tools. Scientists have now started aiming their research at many new targets.

According to Ed O'Brien, President of Delaware Valley Corporate Services in Bala Cynwyd, Pa. It is part of the Staubach Co; "There were 500 to 600 target areas before. Now there are 50,000 to 60,000 targets." This promises lots of research jobs and related economic development opportunities. It is estimated that companies are going to make quantum leap breakthroughs in the discovery process that will improve efficiency in the identification of drug compounds. In these times of economic turmoil, the next big thing to happen is coming together of companies, say experts like O'Brien who observe that there are a number of companies on venture capital funding and still a number of years away from having a product that goes into the market and create revenue. A lot of companies have started running out of capital. This is due the fact that it requires a sizable amount of money to bring a product to market. Also, a lot of biotech firms are so new that they have little experience in dealing with regulatory process. Hence, an effective solution for this problem seems to be consolidation of industries. Big pharmaceuticals bring big dollars to the table along with the experience in dealing with regulatory problems and bringing products to the market. The smaller biotech firms, on the other hand, bring innovative new products. Thus, consolidation is bound to happen.

The situation in India:

Indian clinical research organizations do not see any near term impact of recession as large pharma customers such as AstraZeneca and Glaxo continue to send more work to India where it can be conducted at one fifth of the cost taken in the U.S. The \$200 million Indian clinical research outsourcing market will reach up to \$600 million by 2010 according to a research conducted by research firm KPMG and the Confederation of Indian Industry (CII) in September this year.

With many bio-pharmaceutical industry's clinical trials already in pipeline, Indian CRO's are going to be unaffected by the recession. Experts feel that the Indian biotechnology industry, which currently holds only 2% of the share of global market, has the potential to grow and emerge as global player in coming years. Chairman and Managing Director of Biocon Limited, Kiran Majumdar Shaw, expresses confidence that the biotech industry will attain the target of 5 billion dollars by 2010. She further says that the 5 billion dollars market that has been forecast is going to largely comprise of pharmaceutical products like vaccines and other therapeutic products. It is going to be the agro biotech products, which will almost comprise a billion dollars.

And, as far as the actual growth of the industry in

India is concerned ; according to a survey conducted by Association of Biotech led Enterprises(ABLE), Indian biotech industry has reported a growth of 20% during the year 2007-2008. The industry earned a revenue worth 2.56 billion dollars as against the last fiscal , which was 2.1 billion dollars.

Moreover, huge investments are being made in the biotech sector in the coming year. This is proved from the fact that Union Minister of Science and Technology , Kapil Sibal on fourteenth of December ,in Lucknow announced that 20 more biotech parks will be set up throughout the country promoting research in the field of Life Sciences. The Minister also said that, UNESCO Centre will come up in Faridabad in Haryana to help bring academia, industrialists and government officials on a common platform for promoting utility based research. Thus, the situation on biotech front is not bleak; on the other hand it's bright. However, it is important to note that downsizing and cost cutting are taking place at many pharmaceutical companies which is mainly almost exclusively on projected lost revenues that may occur, 2-5 years from now when many drugs begin to lose patent protection. But, it is also true that, most pharma companies have plenty of cash on hand. Zacks senior biotech industry analyst Grant Zeng, CFA says that," biotech industry in general is very positive. I am confident that growth will continue for 2008 and beyond. The driving forces behind the continued growth are still in effect, which are derived from innovative medicines that target a broad variety of diseases.

Conclusion:

We can say, therefore, that although the recession has taken a toll on the life sciences industries, the effect is not so severe as compared to other industries. Hence, biotech is bound to shine through these turbulent times. Also, as 'Health is wealth', the healthcare and biotech are going to hold their posts as no compromises can be made with health; whether economic recession or not.

And for Indians there is good news. The future of biotech in India is very bright. It seems that India is the best destination for conducting global clinical trials because of faster enrollment, faster regulatory filings, and speed up regulatory procedures. Major players such as Biocon continue to get tremendous offshore work relating to regulatory clinical projects. Hence, India is bound to become a major player in contributions of biotechnology to the world economy. Hence, things are definitely looking up for India. So the message for the people in biotechnology is loud and clear; 'Stay tuned because the best is yet to come.'