RECENT TRENDS IN ANALYTICAL INSTRUMENT'S MARKET AND COMPARATIVE ANALYSIS OF MARKETING STRATEGIES OF BIO-RAD AND BECKMAN COULTER IN INDIAN MARKET

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Abstract

The recent increase in focus towards bio-analytical instrument industry is a result of increase in the requirement of sophisticated, multi-utility, portable and highly accurate instruments. The government research institutes and academic institutes are major buyers in India. In the midst of this positive growth, Bio-Rad and Beckman Coulter Inc. have emerged as prominent companies which are providing world class instruments and service. The competition in this sector cannot be ignored. Thus, while comparing the success of these two companies, it all comes down to their marketing strategies. For example, in case of Beckman Coulter, they were more focussed towards R&D whereas Bio-Rad released a series of videos on youtube and similarly looked for 'easy to employ' marketing strategies. A survey was conducted to perform a comparative analysis of marketing strategies of Bio-Rad and Beckman Coulter.

Keywords: *Bio-analytical, instrument, marketing, spectroscopy, Bio-Rad, Beckman Coulter*

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I. INTRODUCTION

Expanding Research culture in research institutes and Universities in several parts of India has stressed the need for efficient analytical instruments that are to be reliable, flexible and at the same time would compute accurate results reducing time lag in getting them. This need is taken as an advantage by many analytical instruments manufacturing companies to venture into this newly emerging market. Many companies both Indian and foreign are burning their midnight oil to look into possible opportunities offered in Indian market for attracting target consumers[1].

Indian companies are building alliances with institutes and companies abroad, for technology transfer and by offering innovative products at competitive prices they are strengthening their domestic presence while foreign companies taking the advantage of mind set of Indian consumers for their preference to foreign products, are marketing world class portfolio of products and services.

To name a few, Invitrogen Bio Services, a Bangalore based company advertises its products in all leading technical magazines highlighting their highly technically qualified products. Recently it marketed two of its products namely Meet Floid, which is a new cell imaging station that allows to get a high quality images and veriti, a thermal cycler that has powerful innovative features like colour touch screen, intuitive interface and flexible settings for precise control of PCR[2].

Similarly, Beckman Coulter, Inc. is works in the field of manufacture of biomedical laboratory instruments, software and services that handle complex biomedical tests. The marketing strategies of Beckman Coulter has been discussed further in next segment.

Same like Invitrogen, many companies found it suitable to promote their products and services through advertisements in leading magazines. Certain companies such as Thermo scientific, Pall life services and Agilent technologies have been regular visitors to conferences and technical symposiums and sponsoring events. Trough setting up stalls during such conferences, they convey the range of products and services offered by them through printed manuals and personal interaction with the prospective customers.

Collaboration with other companies has been the major success for majority of companies. A leading player in analytical chemistry, Metrohm India has been catering to the Electro chemistry and ion analysis needs of various industries in India. It has collaborated with Analytic Jena AG for supplying spectrophotometry instruments and Applikon analytical BV for

colorimetry instruments. Recently, it reached an agreement with Sigma Aldrich Europe which states that customers using Metrohm ion chromatography system will get 2.5 % off on the list price of all chemicals and standards required and sigma would provide starting kit for Metrohm KF Titrator for free at the time of installation. This agreement aims to bring down the cost of ownership of the instruments. Through this collaboration, Metrohn tries to brand itself as complete solution provider and associate with Sigma India to use its distribution channel to strengthen the bond with the company.

Through several branches, resident offices and conducting all activities in terms of customer support monitored through a web-based server, it tries to keep costs of instruments and cost of ownership low and be close to customer location. Tecan, a global provider of instruments and solutions in biopharmaceuticals, forensics and clinical diagnostics has entered into agreement with waters to combine Tecan's freedom Evo liquid handling platform with waters ACQUITY TQD LC-Mass spectroscopy to automate sample preparation. Waters combine the technologies from both the companies into a single, fully supported analytical system solution. Such technical collaboration increases assay throughput, efficiency improves profitability and drives down overall assay costs.

UK-based Cleaver Scientific, a renowned company specializing in manufacturing and distributing electrophoretic equipment has spent nearly two years to find its suitable distributing partner. Their rationale behind selecting New-Delhi based Future Bio-Science as exclusive distributor was because they were new to Indian market, therefore they need a partner which has a great network and customer base very well. Through their alliance they are growing at a rate of 30-40% every year[3].

The above mentioned rationale was applicable to another case wherein ABSCIEX, a global leader in analytical technology business has acquired the mass spectroscopy business of Labindia Instruments, a leading life sciences solutions provider in India. The reason behind this acquisition is to combine global resources, world class scientific expertise and product development leadership of ABSCIEX with well established, local expertise and on-site support of Labindia to advance science and respond to growing need of India's scientific community.

Such collaborations are certainly uncommon in Indian scenario. To add another example Biogentek, an Indian company has acquired advanced technology through collaboration with

companies abroad such as Applikon, kuhner, Labconco and Nexcelon to manufacture wide range of products starting from shakers to automated cell counters.

Some companies specifically concentrate on a particular domain. Phenomenex markets chromatographic equipment and provides excellent customer services and Edition product guide for usage of equipment. Bruker focuses on advanced mass spectrophotometry solutions while Agaram on continuous flow analyser. Esco Biotech as a promotional strategy claims worldwide certificates on its products.

In this paper we tried to gather information about recent trends in analytical instruments market and discussed the marketing strategies of two major players in Indian market- Beckman Coutler and Bio-Rad[4].

II. METHODS USED IN THIS STUDY

This research is embodied with both primary and secondary data. As far as secondary data is concerned they were sought from various books, journals, magazines, news papers, periodicals, unpublished sources, internet etc. The study also embodied a sizeable primary data, which was collected by way of canvassing a questionnaire amongst selected sample of respondents through personal interviews.

1. Survey

A survey was conducted in the Bio labs of VIT to know about the awareness of analytical instruments among the users. Questionnaires were circulated to the users in various labs in the University. Four types of users, namely students, Research associates, faculty and lab assistants were targeted. Most of the labs have instruments belonging to Beckman Coulter and Bio-Rad. Most of the students rated the instruments as excellent while few rated them as average. Both faculty and research associates rated them as good. They are expecting much from the instruments as their performance matters much in terms of giving accurate results which is vital for getting good publications. Lab assistants feel that the post-sale service offered by those companies is satisfactory. The response time for the service is faster in the case of Bio-Rad. Beckman Coulter offers customization services suited to the users. Both the companies sell their products through dealers and Bio-Rad offers online shopping too .They often offer counselling services and guidance to lab assistants on how to operate them. Bio-Rad offers online tutorials. Beckman Coulter offers hands-on training to the users if required, as reported by the users in the

survey. Students had no idea about the companies but the faculty view instruments manufactured by Shimadzu as the best. Owing to Japanese tag, their expectations are higher in terms of performance giving accurate results and precise control of the instrument. They came to know about Shimadzu through net, their seniors and professors. Invariably everyone expects greater flexibility in settings, conditions suited as per the experiment and a greater degree of accuracy in producing the results.

2. Secondary data

2.1 Market Evolution

1990s were great years for the opening up of Indian economy. There was rapid economic growth in the country. Many trade barriers were removed. In 1998 the WTO-IT agreement, to which India was a signatory said that the duties on many analytical instruments will come to zero by 2005. The Indian instrument industry started with a great competition which was based on technology and cost. The role of IPR became very important and was needed for survival and growth.

The analytical instrument industry across the globe is of about $32 billion. The top 10 companies in this field share 50 percent of the total global revenues. Maintenance also form a large share of these revenues and are the most profitable. Including consumables and spares, the Indian analytical instrument market is of around $1 billion. The annual growth rate of analytical instrument market is around 10 percent. US, Japan and some European countries hold 85 % share of the market. The biotechnology analytical instrument market across the globe was estimated at $5.5 billion in 2009. This figure is expected to be grow to $7.3 billion by 2014 with a compound annual growth rate of 5.8%.

2.2 Recent Trends

Today the competition is based on time and productivity. Instrument technologies in biotechnology mostly involve by the life science industry which is working towards new drug discovery or regulatory compliance.

Major trends today include the advancement of combined equipment, smaller instruments, especially portable equipment and increased quality and precision. There has been a growing demand for automated sample preparation systems in pharmaceutical applications. Manufacturers are presently introducing relatively simpler chromatography and mass

spectrometry devices. In addition, many instruments are combined up to perform up to three major functions, into a single unit.

Gas Chromatography has a very large base and new analytical problems and challenges still confront the customers. So the technologies that have been traditionally successful are not enough for the newer analytical requirements. Agilent Technologies Inc. has made a dual-mode ion source for mass spectrometry in 2005 that can operate in both electro spray and atmospheric pressure chemical ionization modes.

Recently, in 2010, the development of high-harmonic spectroscopy was a great breakthrough using which reaction times of atoms can be measured on the atto second timescale. The Joint Laboratory for Atto second Science, the University of Ottawa in Ontario, with the Institute for Photonics at the Technical University, Vienna, Austria developed this technique

2.2 Opportunities

The separation science and spectroscopy techniques are used the most worldwide. The largest buyer of analytical instruments in India is government and colleges, not forgetting the research and pharmaceutical industry. The demand for these instruments will continue to grow. Eventually the research industry will top the list of buyers.

Moreover, security concerns in India have been increasing. This has lead to prolific use of analytical instrumentation for forensic and explosive detections. The instrument industry requires lot of manpower with technical skills. India, no doubt, has a large pool of technical manpower.

Indian bio-analytical industry is going to have world-class laboratory infrastructure due to three factors 1) the rapid economic growth 2) the competitive 3) strict government regulations are forcing. The last few years has seen a large number of foreign companies from many sectors coming to India to set up their R&D facilities.

2.3 Competitors

High start-up costs and strict technological requirements have restricted the entry of new companies in this market. In 2006 a merger happened between Thermo Electron and Fisher Scientific International which led to formation of Thermo Fisher Scientific Inc., of Waltham, Massachusetts. This company served over 350,000 customers in biotech and pharmaceutical companies. Thermo Fisher Scientific Inc. reportedly had 35,400 employees and $10.1 billion of sales in 2009.

Coulter was acquired by Beckman Instruments in 1997. The company reportedly had sales of $3.2 billion in 2009. It has 11,800 employees globally. The company has developed over 600 diagnostic testing instruments.

Other competitors leaders include Roche Diagnostics Corp. of Indianapolis, Indiana, having sales of $9.6 billion and 25,900 employees; Siemens Health Care Diagnostics of Deerfield, Illinois, having sales of $5.0 billion and 2,400 employees; PerkinElmer Corp having $1.8 billion in sales and 8,200 employees and Agilent Technologies of Santa Clara, California have sales of $4.4 billion and 16,800 employees.

2.4 Beckman Coulter

Beckman Coulter, Inc. engages in manufacturing of biomedical laboratory instruments and various IT solutions aimed towards simplicity of usage of the products. Mostly, its products are used in medical research, clinical trials and drug discovery. The company has two business segments, first, clinical diagnostics and second, life science. The company operates in the US, Canada, Europe and many countries in Asia. Its products are sold in 160 countries.

The company has a base of around 200,000 clinical systems around the world. Currently, Beckman is a subsidiary of Danaher corporation and is headquartered in California.

Infinitek, a then start up, used SyncDev to test sell a Biomek® robot. Beckman Coulter acquired this company and sold the product, making is one of the most successful products.

Infinitek developed prototype lab robot to help companies like Amgen and Merck. The company could not become a $100 million company in next five years. The team planned for $35 million later. The new product was no longer a prototype. Instead, they planned developing a breadboard which required two years of development. Finally, the investors made the decision to sell the company[5].

Forty-five days later, Beckman Coulter made the first of two payments to buy the company. Beckman started scaling customers. The product later became successful and is now a global brand. Beckman was founded by Caltech professor Arnold O. Beckman in 1935, with an objective to commercialize a pH meter invented by him . The company by 2004, had 10,000 people as employees, with $2.4 billion as annual income.

In the 1940s, Beckman started selling oxygen analyzers, and spectrophotometers. Beckman began commercialization of the semiconductor transistor technology invented by Caltech

alumnus William Shockley in 1955. In 1961, Beckman entered into merger with Offner Electronics which was founded by inventor Franklin F. Offner.

The most important merger came in 1982 when the company merged with SmithKline and formed SmithKline Beckman. However , this merger ended in 1989. The company finalized acquisition of Hybritech, Inc. from Eli Lilly in 1955,

Later, the company acquired Coulter Corporation in 1998 Also Beckman acquired Diagnostic Systems Laboratories (DSL) based in Webster, Texas in 2005.and Lumigen and Agencourt Bioscience in 2006. In 2011 Danaher entered into a definitive merger agreement with Beckman Coulter and later, ended up in the acquisition of Beckman Coulter[6]

2.5 Bio - Rad

Bio-Rad Laboratories was founded by David and Alice Schwartz in 1952. The main idea behind launching this company came up due to a game of bridge. While playing, the players were joking about products should have been on the market but were not actually there. Someone advised that creating tobacco mosaic virus, a virus Alice was using for scientific. Dave thought about it and later, he and Alice decided to launch a company with an objective to aid the scientific research by providing products and tools to corresponding researchers.

Later, they continued to expand their product line. In 1967, Bio-Rad developed its first test kit based on separation techniques marking their entry in the field of clinical diagnostics. Bio-Rad advanced into analytical and measuring instrument development through various acquisitions in the late 1970s and 1980s. In 1999, Bio-Rad finalized acquisition of Pasteur Sanofi Diagnostics. Thus company improved in HIV diagnostic product market. in 2000s, Bio-Rad diverged its semiconductor and confocal microscopy product lines. Bio-Rad also announced acquisition of Switzerland-based DiaMed Holding AG, in late 2007 improving its presence in the immunohematology market [7]

It has also advanced its geographical market. Bio Rad has distributing in more than 30 countries outside the US with the help of subsidiaries. Bio-Rad is currently serving more than 100,000 research, industry, and clinical laboratories across the world. The company's major customers include those in hospitals, universities and research institutions, and other private industry laboratories. Bio-Rad has also produced several musical advertising videos which have been posted in You Tube[8].

III. ANALYSIS AND DISCUSSION

The shrewd marketing tactics adopted by both the companies were instrumental in their survival in Indian market amidst changing government policies and cut throat competition. While Beckman Coutler largely concentrated itself in manufacturing of medical instruments , Bio-Rad diverged into new areas. Both companies are customer oriented and focused on offering valuable services to beat the competition. Immediate response to customer complaints and selling products through online are hallmark features of Bio-Rad. Beckman Coutler has devised strategies to attract a large customer base. In addition to offering customization services, it also offers training on the usage of the instruments. The market segments of Beckman Coutler are simple and easy to evaluate as well as mostly concentrated to medical research area. Contrary to that the market segments of Bio-Rad are complex to understand and customer group consists of hospitals, universities and research labs across globe. Their marketing strategies are tuned in accordance to their target segments . Beckman Coutler advertises its products in leading medical research journals and maintains direct contacts with its customers. On other hand Bio-Rad offers options of online shopping and advertises its products in You Tube.

Despite being new to Indian market , the huge success of both the companies can be attributed to collaboration with local distributors , acquisition of existing companies and strong research and development facility based in abroad.

Both these companies need to employ tactics to keep themselves alive in face of new entrants like Shimazdu, who could slowly penetrate into market and replace them.

IV. CONCLUSION

The analytical instruments market in Indian scenario is not yet saturated paving path to look for exciting opportunities in this area. The growth phase owes to the fact that many new research labs, academic institutions and hospitals are cropping up and demand for analytical instruments is on exponential rise. This offers possibilities for various companies to venture into the market.

Through liberalization programme Indian economy is open to foreign companies to invest here. Backed up with strong technical base and innovations in varied product lines MNCs could be major players. There are reasons for domestic companies to cheer up. Through technology transfer by collaborating with companies based in abroad and strong domestic presence, Indian companies are able to effectively capture the market.

Future holds bright for them who could at best meet the increasing demand not compromising on the quality. Quality is the major determining factor that adds to competitive differentiation .In addition understanding consumer behavior and competitive pricing enhances their survival.

REFERENCES

1. Competition among Analytical instruments company, Biospectrum; Cybermedia Publication; vol.10;issue2 Feb 2006 -
2. Common enzyme and analytical instrument companies, Biosensors And Modern Biospecific Analytical Techniques, Volume 44, Page 438-439
3. http://www.cleaverscientific.com/, http://www.danyel.co.il/companies.php?did=144
4. (http://www.phenomenex.com/) (http://investing.businessweek.com/research/stocks/private/snapshot.asp?privcapId=6740537)
5. http://productdevelopment.com/customers/cs-beckmancoulter.html
6. http://articles.marketwatch.com/keyword/beckman-coulter Danaher Buys Beckman Coulter, Feb 7 , 2011
7. http://www.nytimes.com/keyword/bio-rad-laboratories http://www.proactiveinvestors.com/companies/overview/1362/bio-rad-laboratories-1362.html
8. http://www.wikinvest.com/stock/Bio-Rad_Laboratories_(BIO)/Data/Income_Statement, http://www.bio-rad.com/webroot/web/pdf/corporate/literature/2008_annual.pdf