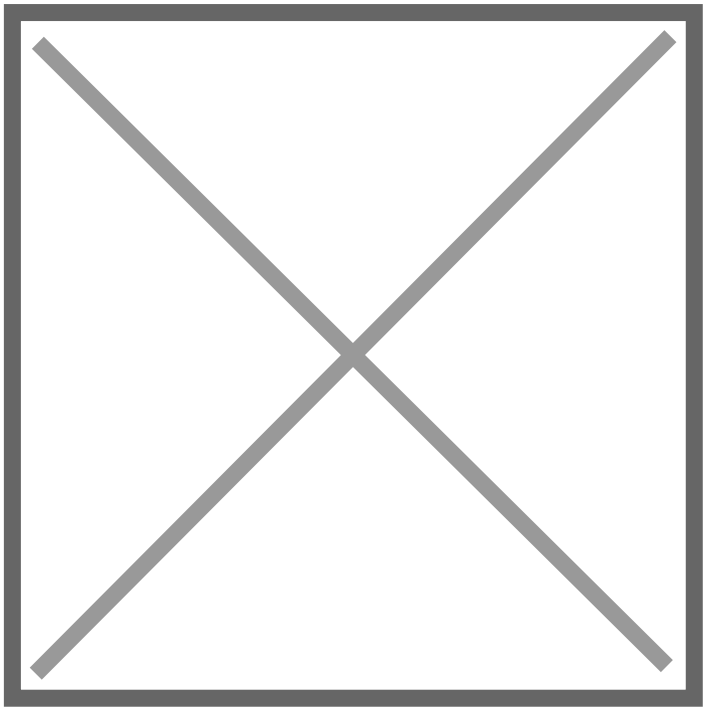
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LAB INSTRUMENTATION

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Lackluster trend interrupts growth

Slump in research and development expenditure by the public sector institutes coupled with recession in the Indian economy affected the growth rate of lab instrumentation market

The lab instrumentation market primarily consists of centrifuges, flow cytometry, PCRs and to some extent the upcoming segments such as gene sequencing. While the market for instruments in FY 2010-11 witnessed a 30 percent growth, FY 2011-12 saw a sharp decline in growth ranging between 10-12 percent. This slowdown in growth was primarily due to the research and development (R&D) budget cuts in the public sector (mainly research institutions), academic institutions and universities gradually closing down courses in biotech (due to low employment prospects) and above all, the slow GDP growth of the Indian economy. Experts are apprehensive that with the volatility of the Indian rupee vis-a-vis the US dollar, a further lag in the coming months is expected since most of the lab instrumentation products are imported from markets such as the US. This means not just a drop in revenues but a drop in terms of volume and deferment of orders.

Clearly, the same set of players continue to dominate the market which include companies such as AB SCIEX, Beckman Coulter (acquired by Danaher), Becton Dickinson, BioRad, Eppendorf, GE Healthcare, Perkin Elmer, Roche, and Thermo Fisher Scientific.

Market segments and trends

The centrifuge segment, which is primarily a tender-based market continues to see a slowdown again owing to drop in government funding towards this sector. According to experts, around 60-70 percent of the revenues comes from the government. The vaccine sector is a major revenue churner for this segment. The Indian vaccine market dominated by a handful seven-eight players which makes the scope for centrifuge players very limited. Unless these companies give huge order or are in an expansion mode, there will not be much of purchase and installation of centrifuges.

The segment can be further divided into ultra centrifuges, high-speed centrifuges, high capacity centrifuges, general table top centrifuges, industrial centrifuges and blood bank centrifuges. Overall the market grew at an average rate of 10 percent and its size is between $15-20 million in India. High speed, high capacity and blood bank centrifuges together have the maximum market share of around 30-40 percent. Together, they have an amalgamated revenues of $7-8 million with high speed growing at eight-10 percent clocking a market size of $3-4 million. Thermo Fisher Scientific is a leading player in high capacity centrifuges. The ultra centrifuges segment has a market size between $4-5 million growing at a rate of 12-15 percent. Beckman Coulter

(acquired by Danaher), ThermoFisher Scientific are the leading players in the segment. Most of the ultra centrifuges are used for research activities. Table top centrifuges clocked a market size between $6-8 million. This is the fastest growing market today, because it has become a mandatory requirement for every laboratory and research center to have a table top centrifuge. A total of eight million table top centrifuges were installed over the past one year. Eppendorf and ThermoFisher Scientific together have a market share of 50 percent. The industrial centrifuges market is dominated by Alfa Laval.

The flow cytometry market garnered sales of ₹140 crore which can be broken up into three major segments such as research, clinical, and industrial. This market is growing by 20-22 percent. Core research institutes in India have deep penetrations of flow cytometry with lesser headroom to grow. But higher education segment, including medical colleges, has huge potential for instrumentation and research reagents. The clinical market is driven by AIDS monitoring, leukemia and lymphoma monitoring, and cord blood banking. This segment provides good growth for consumables and reagent business. Personal analyzers and sorters will attract major research market. However, industrial segment has not shown much promise. Becton Dickinson, by far, is the leading player in the flow cytometry market.

The PCR market, which at one point was growing at around 25 percent, is now growing at a growth rate between 12-15 percent. This is because it has reached a stabilization point. A total of around 20 players operate in the segment. The market can be further divided into real time PCRs and classical PCRs, with the shift gradually moving towards real time PCRs.

Real time PCRs recorded a growth of 30-35 percent due to the growth of the molecular diagnostic sector in India while classical PCRs recorded a growth of 15 percent. BioRad and Eppendorf lead the real time PCRs segment. A total of 1,200 units of classical PCRs were sold with an average price of ₹1.7 lakh, while around 300-400 units of real time PCRs were sold with an average price of $ 25,000. The public sector mainly academic institutes and colleges are the main customers for PCRs. Also the market is seeing increasing competition especially from Chinese players.

In the field of gene sequencing, an upcoming area within this segment, the major trend is the next generation sequencing (NGS). The technology by Pacific Biosciences is a disruptive technology that takes care of all the nemeses of the NGS at a striking 1/10th of its cost per sample. Having an average read length of approximately 3,000 bps (with highest documented up to 8,000bps); the data is much cleaner and also takes care of overlapping. Also, the recurring cost per sample is as low as $350, when compared to $8,000 cost per sample of NGS. It has been brought to India by Imperial Life Sciences in August, 2011.

Highlights

AB SCIEX, Beckman Coulter (acquired by Danaher), Becton Dickinson, BioRad, Eppendorf, GE Healthcare, Perkin Elmer, Roche, and Thermo Fisher Scientific continues as key players

Centrifuges market grew at an average rate of 10 percent, its size being $15-20 million

PCR market is growing at a rate of 12-15 percent