Newspaper Clips

June 20, 2013

Hindustan Times ND 20-Jun-13 P-11

No Indian varsity in Times Top 100 list

BORN AFTER 1963, THEY MAKE THE CUT

1	Pohang University of Science & Technology	South Korea
2	École Polytechnique Fédérale of Lausanne	Switzerland
3	Korea Advanced Institute of Science & Technology	South Korea
4	Hong Kong University of Science and Technology	Hong Kong
5	University of California, Irvine	US
6	Maastricht University	Netherlands
7	University of York	UK
8	Nanyang Technological University	Singapore
9	Université Pierre et Marie Curie	France
10	Université Paris-Sud	France

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NEW DELHI: Hamstrung with poor research facilities, even the 'young' Indian universities have to toil harder to find a space in the global arena. A global ranking of world universities that are under 50 years of age, does not include any Indian university.

Besides India, China and Russia also not do not figure in the list.

The Times Higher Education 100 under-50 rankings released in London on Wednesday is designed to reflect on how many nations were challenging the traditional education powerhouses of the US and the UK.

This is the second year of the list's release. To qualify for inclusion in the ranking, universities have to be 50-years-old or younger (founded in 1963 onwards).

The top spot once again went to South Korea's Pohang University of Science and Technology (Postech). Asia again makes an impressive show in the under-50 rankings, with as many as eight countries in the continent being represented. The UK has a maximum number of under-50 universities followed by Australia and the US.

Phil Baty, editor of the Times Higher Education Rankings, said, "We haven't found may examples of India's universities under-50 years which are currently meeting our tough global standards. The Indian universities that feature in the traditional Times Higher Education World University Rankings, mainly Indian Institute of Technology, are mostly older than 50 years."

"The traditional elite cannot afford to rely too heavily on reputation — there is a new breed of universities emerging to challenge their crowns," he added.

Publication: The Times Of India Delhi;Date: Jun 20, 2013;Section: Times Nation;Page: 12;

Pune supercomps among world's fastest

Swati Shinde Gole | TNN

Pune: Two computers from Pune feature among the top 100 in the list of 500 fastest supercomputers in the world.

While the Indian Institute of Tropical Meteorology (IITM) supercomputer stands 36th in the list, Param Yuva II, developed by the Centre for Development of Advanced Computing (C-DAC), has bagged the 69th position. The IITM supercomputer is yet to be installed while the Param Yuva II became operational this February.

The list of the world's top 500 supercomputers was announced on Tuesday at the launch of the opening session of the International Supercomputing conference in Leipzig, Germany.

The Param Yuva II has a capacity of 524 teraflops and within three weeks of the launch, it was already running at 70% of its capacity. Precise weather forecasting, faster tapping of natural resources in the sea and designing of customized drugs are possible using Param Yuva II. The IITM supercomputer will start functioning in the next two to three months.

For the full report, log on to www.timesofindia.com

Business Standard ND 20-Jun-13 P-7

A year on, IIT-JEE coaching institutes see a good admission season

HRD ministry's initiative against 'coaching culture' flops, students flock to tuition centres

KALPANA PATHAK
Mumbai, 19 June

The ministry of human resource development's (MHRD) idea to tweak the joint entrance examination (JEE) to discourage the coaching culture doesn't seem to have worked. In fact, it has resulted in more students knocking on the doors of engineering test preparation institutes. For IIT-JEE coaching institutes, academic year 2012-13 has been good.

Three test preparing institutes — Kota-based Career Point Infosystems, FIITJEE and Rao IIT Academy — told *Business Standard* admission at the institutes has seen a 15 per cent jump, which may go up to 30 per cent over the next few months.

"With the changes brought about in the exam, MHRD has in effect given a fillip to the coaching culture. Students and parents think it may be difficult to get into the IITs without any formal coaching," says Pramod Maheshwari, CEO, Career Point Infosystems, Kota. He says his institute has introduced coaching programmes for 12th standard students, in addition to providing coaching for IIT-JEE. The institute has also increased the programme fee by 10 per cent. Till last year, the BSE-listed institute was charging ₹80,000 for its IIT-JEE coaching package and ₹40,000 for AIEEE coaching.

According to FIIT-JEE, which has around 50 centres across the country, there has a 5-15 per cent increase in enrolments in the coaching sector. Mumbai's Rao IIT Academy has seen admissions go up from 1,200 students in 2012 to 2,000 in 2013.

R L Trikha, director of FIIT-JEE Ltd, says the increase in fee is at an average of three per cent, compared to last year.

Concurring that students do not attend schools due to the 'coaching-class culture' and the pressure of such training programmes, MHRD had introduced changes in the IIT JEE examination last year.

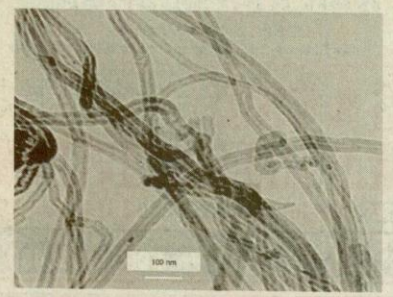
A committee, formed under Professor Idi Chandy of IIT-Madras, established a correlation between school performance and IIT performance, inferring that students were doing better in school. Thus, in a bid to promote school education and to dissuade the coaching culture, MHRD changed the IIT-JEE format.

Hindu ND 20-Jun-13 P-18

Reducing water usage in steel industry

Thermal conductivity of water increases when carbon nanotubes are dispersed in it

R. PRASAD



NANO SIZE, MEGA BENEFIT: *Transmission electron microscope (TEM) image of a few carbon nanotubes (left). Carbon nanotubes produced at IIT Madras.* – PHOTOS: SPECIAL ARRANGEMENT

Carbon nanotubes, by virtue of their high surface area and aspect ratio, are known for their excellent thermal conductivity — 3,000 W/mK. Even as scientists across the world are looking at ways of adding carbon nanotubes to fluids for use in heat exchangers to enhance heat transfer efficiency in steel plants and automobile coolants, IIT Madras has already tested the nanofluid's superiority.

In 2010, a joint patent was filed by Tata Steel and IIT Madras for the use of nanofluids to increase the thermal conductivity in industries such as steel and automobiles.

IIT Madras has developed the process of manufacturing 10 grams of nanotubes per batch and successfully used the material in increasing the thermal conductivity of cooling fluids. The challenge is to increase the amount of nanotubes produced per batch and test the heat transfer efficiency in heat exchangers.

"There will be up to a 30 per cent increase in thermal conductivity in the case of nanofluid when compared with distilled water," said Prof. S. Ramaprabhu of the Alternative Energy and Nanotechnology Laboratory, Department of Physics, IIT Madras. Prof. Ramaprabhu and his team synthesised better quality carbon nanotubes and increased the yield by successfully using a novel catalyst; the process of synthesising the carbon nanotubes was patented in 2004.

Increase in efficiency

"The thermal conductivity increased from 0.635 W/mK in the case of distilled water to 0.7W/mK-0.78 W/mK when carbon nanotubes are dispersed in water," he said. "Thermal conductivity rises with temperature."

The thermal conductivity of nanofluid was tested and compared with distilled water at different temperatures within the 30 degree C to 70 degree C range.

The nanofluid's thermal conductivity was next compared with distilled water using a more direct test. The time taken to cool a hot steel plate at 800 degree C to room temperature using normal water and nanofluid was compared. "Normal water took 15 to 18 seconds to cool the hot steel plate to room temperature, while the nanofluid took just five to six seconds," he recalled.

An increase of up to 30 per cent in thermal conductivity directly translates into commercial gains. In the case of steel industry, huge quantities of water used in heat exchangers can be greatly reduced by using water containing carbon nanotubes.

Steel industry is water intensive. For instance, hot rolling operations and coke oven gas treatment independently use 7,000-9,000 gallons of water per tonne of product produced.

Added to these operations are about 2,500-4,000 gallons of water per tonne of product produced in each of the following cases — blast furnace, basic oxygen furnace and cold rolling operation.

Automobile industry

The automobile industry is another important field where nanofluids would find great application. When nanofluid is used as a coolant, the size of the radiator and other components for heat dissipation can be reduced. This reduction would directly translate to a decrease in the size or weight of the car. The net effect would be a decline in fuel consumption.

Tests demonstrated that nanofluid performed well even when the viscosity of water was raised by adding ethylene glycol. Ethylene glycol is used in coolants for its antifreeze properties.

"The increase in thermal conductivity in the case of ethylene glycol mixed with water [50:50] was up to 10 per cent," said Prof. Ramaprabhu. "The [relatively] reduced heat transfer efficiency is because of the higher viscosity of ethylene glycol."

Hindu ND 20-Jun-13 P-18

Mimicking microbes to deliver drugs

SHUBASHREE DESIKAN

Scientists from Chennai have provided the scheme for building tiny objects that can propel themselves in fluids, like the bloodstream, to deliver drugs. The scheme is supported by simulations of how such engines would work. Their work was recently published in *Nature Scientific Reports*.

Professors P.B. Sunil Kumar of Physics Department, IIT Madras and Ronojoy Adhikari of Institute of Mathematical Sciences, Chennai, senior authors of the paper, wanted to design a micro-oar which would "beat" on its own and so propel anything that it was attached to. They wanted their oar to mimic the motion of cilia and flagella, the beating parts which propel bacteria in a fluid.

While sperms and some bacteria moving in fluids with the help of flagella use cork-screw-like beats to propel themselves through

The movement of cilia and flagella of bacteria is copied. – PHOTO: AFP

the system, some other protozoans like *paramecium* use a flexible oar-like movement.

The researchers came up with a simple design to mimic these systems, which uses active beads, strung together in a chain. These beads convert chemical energy to mechanical motion. Such beads have been synthesised a decade ago.

Simulating the motion of the filament of active beads on a supercomputer, the research group found a remarkably life-like beating. Depending on how much flow the active beads could generate, the filament spontaneously beat like a cilium or the tail of a sperm cell, or, rotated like the flagellum of bacteria such as *E. coli*.

Thus, the same filament could either be used as an oar or a propeller by tuning the degree to which the beads of the chain consume chemical energy. "This new design for propulsion engines which can both beat and rotate is simpler than anything that has been suggested before" says Prof. Adhikari.

Remarking on the significance of the study, Prof. Kumar, says, "You cannot take the rules for swimming used by a large animal and apply it to a small object.

"That is why a bacterium uses a corkscrew like motion to propel itself, instead of strokes that a swimmer would use. So when people try to build nanomotors they have to think about all this."

The group intends to collaborate with experimental groups to see if these systems can be realised in practice and then maybe even move on to designing drug delivery systems.

Mail Today ND 20-Jun-13 P-1

WAKE-UP CALL

Degree in hand, a generation of engineers looks for alternatives

By Anirban Sen & Pankaj Mishra

BANGALORE

mint SERIES-II

For Rajeev, a 23-year-old engineering student from Varanasi in Uttar Pradesh, planning for a career in India's $108 billion (around ₹6.3 trillion) software industry began when he was a teenager.

"Where I come from, it's popular to prepare for competitive exams and aspire to become an IAS (Indian Administrative Service) officer, or even attempt to become a probationary officer with a public sector bank," said Rajeev, who will graduate next year in computer science from a top engineering college in Bangalore. He didn't want to use his second name.

AFTER THE BOOM

The planning gathered pace after Rajeev watched a YouTube video of the TEDIndia event in November 2009 that showcased the training facilities at Infosys Ltd, India's second biggest software firm.

"There was a bowling alley, movie theatres inside a geodesic dome and hundreds of fresh graduates walking around. I envied them and decided to pursue a career in IT (information technology)," Rajeev said. He persuaded his parents to enrol him in a course that prepares students for the combined entrance test to more than 3,000 engineering colleges in India. After a year of preparation, he passed the exam and gained admission to the four-year bachelor of engineering course that he will complete in 2014.

That's about as far as the plan looks like it will work because the world of the IT engineering graduate has changed dramatically since 2009.

Rajeev will find himself among a million fresh engineering graduates next year, most of whom won't have a job waiting for them, unlike a few years ago. Meanwhile, his seniors who graduated this year have come to the disappointing realization that an offer letter no longer guarantees a job.

Rajeev has been forced to switch his career aspiration.

"I plan to sit for the probationary officer exams conducted by the State Bank of India because it doesn't look like we will go anywhere with this degree," Rajeev said in a phone interview on Monday.

The IT industry can't employ all the engineers that India's colleges are churning out as they themselves learn to cope with a leaner, meaner business climate. At least two generations of engineering students, including those graduating this year and the ones who passed last year, are realizing they don't have anywhere to go. Only some of them, about 188,000, are expected to find jobs with India's software firms. Until last year, the IT industry hired about 235,000.

But the challenge is not just demand, it's also the quality of the graduates. According to an Aspiring Minds study in 2012, less than one-fifth of India's engineers have the necessary skills needed at a top IT firm.

Already, India trains 1.5 million engineers every year, more than what the US (0.1

TURN TO PAGE 8

Mail Today ND 20-Jun-13 P-8

DEGREE IN HAND, A GENERATION OF ENGINEERS LOOKS FOR ALTERNATIVES

FROM PAGE 1

million) and China (1.1 million) jointly produce, according to an April 2013 report, *How Many Engineers are Required to Change a Light Bulb?*, by Akhilesh Tilotia and Kawaljeet Saluja of Kotak Institutional Equities, a brokerage firm. (Training refers to intake, rather than graduates.)

"We believe India is training more than double the requirement of its graduates every year; this is assuming that India is indeed even able to generate the 11-12 million overall employment opportunities every year," the Kotak analysts said.

The crisis

Over years, **Tata Consultancy Services Ltd** (TCS), Infosys and **Wipro Ltd** feverishly built their so-called pyramid model that involved hiring thousands of fresh engineering graduates annually and quickly deploying them on software projects to ensure overall costs remained low. The model depended on the traditional billing of services offered to customers such as **General Electric Co.** on a per-person, per-hour basis.

In order to make sure this pyramid was kept supplied, the number of engineering colleges in the country doubled to 3,393 by 2012 from 1,668 in 2008.

These colleges are now finding it hard to fill seats as demand slows, according to E. Balagurusamy, former vice-chancellor of Anna University in Chennai. Dozens of such colleges in Coimbatore and other south Indian cities are up for sale, but have no takers, he said.

"When the demand was there, anybody with a building and basic facilities could apply and get an approval to start an engineering college. They never bothered about the demand," Balagurusamy said.

Experts such as Rishi Das, co-founder and chief executive of staffing and recruitment firm CareerNet Consulting, said the government and approving authorities failed to keep track of demand.

"The pyramid model is no longer looking like a pyramid, it's looking more like an inverted pyramid. Jobs need to be added more at the worker level...the government has actually let everyone down at this level. These guys have been giving out licences to engineering colleges without actually consulting the industry on how many engineers they actually need," he said.

Young people are now more open to looking at jobs in banks and, if they want to stick with engineering, at public sector units such as **NTPC Ltd**, **Indian Oil Corp. Ltd** and **Bharat Heavy Electricals Ltd**, Das said.

"After the sixth pay commission, if you look at the wages, they are also quite good. People are now realizing that since IT has come a full circle, stability is important—the payouts in public sector jobs are also not bad," he said.

Probationary officer jobs in banks are increasingly being filled up by engineering graduates, he said. "There are some 40,000-50,000 jobs available for probationary officers in banks across the country and the advantage they have is that for these positions, they look for people who are strong in math, high aptitude—so quite a few engineers end up landing good jobs in that area," Das said.

Trapped in transition

A generation of engineering students set to graduate next year has got trapped in Indian IT's transition and will soon be burdened with unemployment and education loans as they face increased social pressure to find a job.

Amith R., 21, who hails from Shimoga district in Karnataka and a final year student in the electronics and communications department of Dayananda Sagar College of Engineering, is concerned about his debt. He's taken a loan of about ₹5 lakh at 11% interest.

"Education loans are becoming an important mode of financing education. Loans outstanding have grown more than 10 times in the past seven years," said the Kotak report. Average outstanding loans have grown at a compounded annual growth rate of 37% in the past seven years and currently stand at ₹50,100 crore, the report said.

If a new graduate gets a job with a monthly salary of ₹15,000 as take-home pay, repayments on a ₹1.75 lakh loan would account for at least one-fifth of that.

Amith has an offer letter from a top five Indian IT company, but remains sceptical about getting a full-time job there, after seeing what his seniors—some of whom are still looking for a job—are going through.

"What good is an offer if you haven't got a joining date?" said Amith.

He is not alone. Venkatesh, 22, who graduated last year from a top engineering college in Tamil Nadu, got an offer letter from the same company in 2011 like many others in his batch. Nearly two years later, most of them are still waiting to join employment.

"When I first got into engineering (in 2008), I never imagined things would turn out so bad," said Venkatesh. A month ago, he got a back-office job in Bangalore at a salary of ₹10,000 a month. Five years ago, Venkatesh could have commanded a minimum ₹20,000 monthly pay at a job that required his engineering skills to be used.

"It's been an extremely frustrating wait and honestly I don't know where to go," said Venkatesh, whose father retired a few years ago and suffers from a heart condition. He has a younger sister in college.

The students of Dayananda Sagar aren't the only ones to face a bleak future. Even top colleges in Karnataka, such as PES Institute of Technology, that pride themselves on full employment of all students, have admitted that 2013 has been a tough year in terms of hiring by top technology firms.

A placement head at one of Bangalore's top engineering colleges said top companies such as IBM, Infosys and Wipro were deferring hiring plans for 2014 until they absorbed all the engineering graduates they had made offers to. "Frankly 2014 is keeping us on tenterhooks," he said. He didn't want to be named as he wasn't authorized by the college management to discuss details about next year's placements.

Apart from this, declining attrition rates at all the top IT companies mean there is a glut in supply.

According to All India Council for Technical Education figures, the annual intake of students at engineering colleges has more than doubled between 2008 and 2012. While in 2008 the intake was a little over 1 million students, the number stands at nearly 2.5 million for 2012.

In the same period, the number of fresh engineers hired by the IT sector has dropped to 235,000 in 2012 from 341,000 in 2008, according to data from Nasscom lobby group.

"Most of these companies are now maintaining a huge number of people on the bench. 30-40% of engineers are on the bench. If they are not getting new projects, how do you utilize those people?" said M.N. Guruvenkatesh, vice-president of placements at Dayananda Sagar Institutions.

Halved hiring

The industry expects hiring to drop to 170,000 engineers this year, about half that in 2008.

"This year, the numbers are a little down compared to last year. Last year, most of the companies were hiring in good numbers," said Guruvenkatesh. According to him, Infosys hired around 310 graduates and HCL 300 last year.

These numbers have more than halved this year at the top technology companies that previously used to pick up employees on a large scale from campuses.

Infosys has given offer letters only to 120 students at the college this year and said it may not hire at all next year, he said. "And even if they plan to hire, they may cut down to another 50%, which means 60-70. Most of the companies haven't even visited this year. For example, Tech Mahindra...refused to come. They used to visit every year before this," said Guruvenkatesh.

Another final-year student at Dayananda, Anirudha, has noticed a new trend among companies making campus recruitments.

Companies are seeking graduates who have already specialized in a particular area of software programming and coding to avoid having to incur extra costs on further training. This is in contrast with earlier, when the firms would take on those without such specializations as well, taking the onus of training on themselves.

"Now, since the jobs are diminishing, they're looking for already trained specialists in some particular field that they're recruiting for. For example, if they want a software engineer, they would pick someone from computer science, train him and make him a software engineer. But now they look for any branch guy who has training in that particular software that they're hiring for, for example, Java, C++," said Anirudha.

That feeds into the concerns over employability.

"The big problem is that we're creating a large number of students who are unemployable. What happens is that when the costs go up and you're not getting a certain quality of engineers, then the companies face a problem. The reason why they came to Bangalore was the availability of cheap trade manpower. And that has declined, partly because the costs have gone up and partly because the quality has gone down," said Narendar Pani, a professor at the School of Social Sciences at the National Institute of Advanced Studies.

The problem, experts said, is that large software services firms are attempting to move away from commoditized services and earn more from high-end product and consulting projects, but the talent is not skilled enough.

"What we have been producing so far are programmers, not engineers," said Balagurusamy, formerly of Anna University.

Start-up route

While the crisis is set to worsen in the years to come, one area has emerged as a beacon of hope for these students—India's nascent, but emerging start-up scene.

Lack of enough cushy IT jobs will help start-ups looking for engineering talent, according to K. Srikrishna, executive director of the National Entrepreneurship Network that promotes student entrepreneurs. "If you look at Nasscom's plan to create 10,000 start-ups, each of them will need up to 10 staff, that means 100,000 jobs," he said.

With mass recruitment from the likes of TCS, Cognizant, Infosys and Wipro largely becoming a thing of the past, most top and mid-tier colleges are welcoming start-ups to their campuses. The number of start-ups visiting campuses is also rising with each passing year.

For Purvi and a few of her batchmates from one of Bangalore's top engineering colleges, start-ups provided a way out during a year when the jobs crisis in the IT sector hit a new high and saw fewer jobs being created than during the financial crisis year of 2008.

Having graduated in computer science this year, she recently started interning at a start-up called FindYogi, a pricing comparison website. "Start-ups have been a huge boost for people who are graduating this year," Purvi said. "When we joined engineering in 2009, we were all praying that the recession would blow over by the time we graduated. Sadly that never happened."

Another example is Srinivas K., a 22-year-old final-year student at the Indian Institute of Technology (IIT), Madras, who recently got an offer from a start-up called Housing.co.in, which helps people in different cities find flats and apartments that are up for sale or rent.

"It's a big myth that everyone from IIT ends up with a plum job," said Srinivas, who designed a mobile app recently that tracks a few bus routes in Chennai and informs commuters about bus arrival times.

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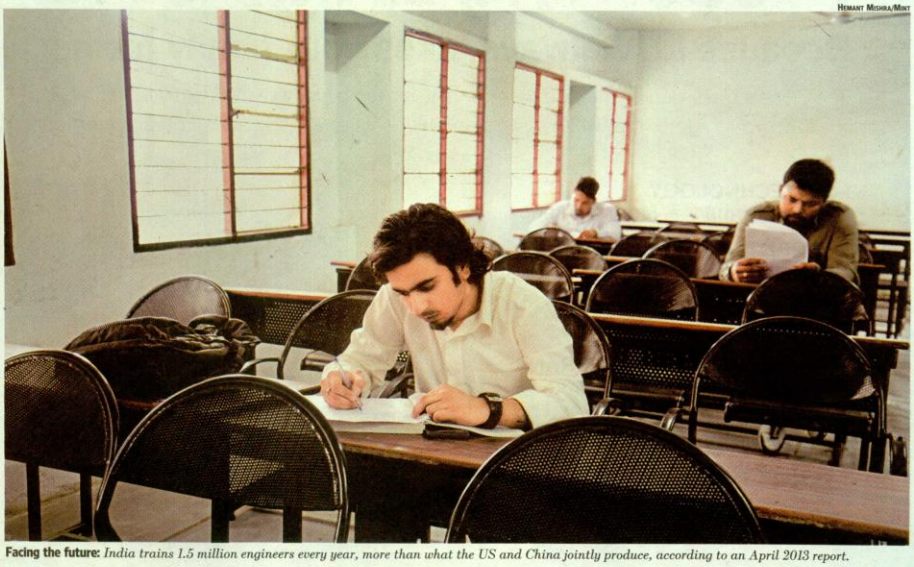
This is the second in a three-part series that examines how various constituents of the Indian IT ecosystem are dealing with the fallout of the global economic crisis.

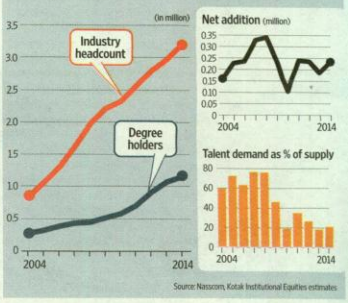
HEMANT MISHRA/MINT



Facing the future: *India trains 1.5 million engineers every year, more than what the US and China jointly produce, according to an April 2013 report.*

SUPPLY SITUATION

An oversupply of degree holders is emerging in the IT industry.



Source: Nasscom, Kotak Institutional Equities estimates

AHMED RAZA KHAN/MINT

Business Standard ND 20-Jun-13P-7

Slowdown blues: Education sector moves out of comfort zone

With numerous players entering the segment, operating margins have steadily declined over the past few years

M SARASWATHY & ABHIJIT LELE
Mumbai, 19 June

India's education sector is no longer recession-proof, with entities reporting lower growth and credit-rating agencies having a negative outlook. The credit profiles of higher education institutions especially have come under pressure. With declining revenues, their liquidity condition may turn tight in the future.

Credit rating agency Crisil Ratings downgraded 33 institutions in 2012-13 alone, while it upgraded 25. In comparison, there were only 12 downgrades and six upgrades in 2011-12.

"While the demand-supply gap for quality higher education remains robust in India, the credit profile of the many higher education institutes is plagued by high-capital intensity, and long incubation period. The enrolments are not commensurate to the capacity till they establish a brand. This impinges the liquidity that is already constrained owing to cash flow asymmetry because of seasonality in fee collection," said Ramraj Pai, president, Crisil Ratings.

Pai added that institutions with an established track record with higher enrolments and prudent cash flow management practices are able to command a better credit risk profile.

Education/training companies saw a slower growth in FY13 on the back of drop in revenues. Bombay Stock Exchange-listed Educomp Solutions slipped into the red and posted a consolidated net loss of ₹147.93 crore for the quarter ended March 31, 2013.

The net sales (total income) for the fourth quarter of FY13 of the company saw a 34.5 per cent drop and stood at ₹336.41 crore, while there was a rise as compared to the previous quarter.

This was due to a lower income from operations and on the back of expenses incurred for changes in inventories of finished goods and stock-in-trade. In the fourth quarter of FY12, the company had posted a net profit of ₹61.53 crore.

Companies are also exiting non-core areas to improve the balance sheet. In April this year, Educomp sold its entire 50 per cent stake in vocational training firm IndiaCan to its joint venture partner Pearson. Similarly in March this year, it completed the sale of its 50 per cent stake in Eurokids International Limited to a group of investors led by GPE India.

Education/training companies saw a slower growth in FY13 on the back of drop in revenues

"Educomp will now operate in a larger setup in areas with larger market opportunity," Educomp's Chairman and Managing Director Shantanu Prakash had told *Business Standard* earlier. He had said that the company would focus on improving operational efficiencies and then grow rapidly.

Peers also had a tough year. Everonn Education, which had seen some volatility last year with top management shuffle ended the year with a net loss. The net loss of Everonn Education Ltd has widened in the fourth quarter of 2012-13 to ₹69.24 crore from ₹29.29 crore in the corresponding quarter of the pervious financial year.

Similarly, CORE Education and Technologies posted a 35.7 per cent drop in its consolidated fourth quarter net profit, compared to Q4 of FY12. The company posted a net profit of ₹50.93 crore for Q4 of FY13, compared to ₹79.23 crore posted in the same quarter in 2012.

Aptech is one of the few companies in this segment that saw a rise in net profit. Ninad Karpe, managing director and CEO of Aptech, said the firm had started the process of re-engineering four years ago -- from changing its logo to consolidating its operations to focus on its core strength of career education. "We are pursuing a path of profitable growth and an 'asset light' model and the results are showing. Like many other industries, there are challenges relating to technology obsolesce and competition; which are faced by the education sector as well," he said.

Crisil Research shows that increasing competition to get into good-quality schools / tier-I and tier-II colleges and the severe shortage of talented workforce that the Indian corporate sector is facing provides significant opportunity for non-formal segments such as coaching classes and skill development.

"Players who do not have an established track record and haven't been able to build trust and credibility are finding it difficult to attract students. In the non-formal education, especially multimedia and ICT, the high rise in receivables from private schools as well as government (in case of government schools) and increasing pricing pressure are leading to stress on the balance sheet"

AJAY SRINIVASAN
Director, Crisil Research

Ajay Srinivasan, director, Crisil Research, said, "The education sector provides huge opportunities for growth, but potential investors need to be cognizant about segment-specific and firm-specific considerations that would impact the viability of their investments."

He explained the key considerations for investors looking at the non-formal education space (coaching classes, preschools, multimedia and Information and communication technology or ICT services, vocational training, and soft skills development) should be the scalability of the business model, competitive scenario, dependence on individuals, relevant tie-ups with the industry, and the availability of systems and processes that will aid business expansion.

Formal education is not a stranger to the slowdown phenomenon. With over one-third seats vacant in engineering and management institutes, experts said the situation looks bleak. Srinivasan said that going forward, many tier-4 engineering and business schools, which are running at sub-optimal capacity utilisation levels, are expected to shut down.

"Players who do not have an established track record and haven't been able to build trust and credibility are finding it difficult to attract students. In the non-formal education, especially multimedia and ICT, the high rise in receivables from private schools as well as government (in case of government schools) and increasing pricing pressure are leading to stress on the balance sheet," said Srinivasan.

He added with numerous players entering this segment, operating margins have steadily declined over the past few years, led by multiple factors such as lower average realisations due to high competition and low product differentiation. In the private schools segment, he said, the first mover advantage is gradually diluting and renewal of contracts is increasingly becoming a challenge for multimedia players.

These entities have seen downgrades in the recent periods, too. Earlier this month, India Ratings & Research (Ind-Ra) has downgraded Educomp Solutions Limited's (Educomp) Long-Term Issuer Rating to 'IND D' from 'IND BB-'. Ind-Ra said that the downgrade reflects Educomp's ongoing delays in its debt repayment due to continued liquidity and earnings stress.

"Stressed earnings are reflected by a 35 per cent y-o-y (year-on-year) drop in consolidated revenues in Q4 of FY13, Ebitda (earnings before interest, taxes, depreciation, and amortisation) loss in Q4 FY13 and net loss in Q4 FY13 and FY13 coupled with a 74 per cent y-o-y increase in finance cost for FY13 given its high debt. The company is negotiating with its banks regarding extension of debt maturities and further refinancing. To alleviate liquidity stress, Educomp is seeking equity infusion, along with implementing a strategy of monetising non-core businesses and assets, including land parcels," Ind-Ra said. The company, however, added that future developments may lead to positive rating action including timely debt servicing for one quarter.

Rating agency Standard & Poor's (S&P), too, has cut its long-term credit rating on Core Education and Technologies Ltd's (CORE) to 'B' from 'B+'. "We lowered the rating on CORE because we believed that the sharp fall in the company's equity prices could negatively affect its access to capital markets and bank funding," said S&P.

This would put pressure on CORE's refinancing and funding plans and 'less than adequate' liquidity.

Players are, however, hopeful that the education sector will see a growth in the next few quarters. Karpe of Aptech said, "We remain optimistic about the industry. It still has a lot of depth and continues to grow at a CAGR (compound annual growth rate) of 12-15 per cent. Only those education companies, who are able to reinvent themselves and rise above the clutter, will survive and grow. Technology will also be a key differentiator."

APPRAISAL CARD

CRISIL Ratings has outstanding ratings on 375 entities in the education services segment
Source: CRISIL Ratings