Quick view

IOC tops Fortune India 500 list, RIL second

Government-run Indian Oil Corp has emerged as the country's biggest company in terms of annual revenue, followed by Mukesh Ambani-led private sector giant Reliance Industries at the second place, as per an annual list of Fortune 500 companies in India. This year's list of the country's 500 largest corporations, compiled by the global business magazine Fortune's Indian edition, features as many as 57 new entities. All the 500 firms together recorded a collective turnover of ₹45,79,911.38 crore in the latest financial year. IOC was the biggest with annual revenue of ₹3,23,113.12 crore, followed by Reliance Industries with a full-year revenue of ₹2,72,923.36 crore. Both IOC and RIL have retained their top-two ranks from the previous year, Fortune India said.

Taj GVK Hotels to set up 5-star hotel near MIAL

Taj GVK Hotels & Resorts on Monday informed the BSE that it with Greenridge Hotels & Resorts, a GVK company is setting up a five-star deluxe (luxury category) hotel near Terminal 1C, Santacruz, Mumbai at Mumbai International Airport (MIAL). The company said it would make an investment of around ₹110.25 crore in phases. The hotel will comprise of 275 rooms and will be operational by mid-2014. The investments will be made through a special purpose vehicle (SPV) called Green Woods Palaces & Resorts set up for the hotel project. The board of directors of the company had approved this investment at its meeting held on November 2 subject to the completion of due diligence, which has been completed now.

US' Thoma Bravo buys Blue Coat for $1.3 bn

US-based private equity investment firm Thoma Bravo has acquired Nasdaq-listed web security and WAN optimisation solutions provider Blue Coat Systems for approximately $1.3 billion. Blue Coat board of directors has approved the agreement and resolved to recommend that the shareholders of Blue Coat adopt this agreement. Blue Coat shareholders will receive $25.81 in cash for each share they hold, representing a premium of approximately 48% over Blue Coat's closing price on December 8, and a premium of approximately 62% over the 60-day trailing average for the period ended December 8, 2011. Blue Coat expects the transaction to close in the first quarter of 2012.

Polaris bags order from Sri Lankan bank

Regional Development Bank (RDB) of Sri Lanka has chosen the Intellect product of Chennai-based mid-tier financial product IT company, Polaris Financial Technology. "We are delighted that RDB chose Intellect core banking solution for the modernisation programme," said K Srinivasan, EVP, geography head, India sub-continent, Middle East and Africa of Polaris.

Mudra Port reports record performance

Mundra Port and Special Economic Zone (MPSEZ) on Monday said Mundra Port had handled a record 111,699 mt of steam coal in 24 hours, which was an India best performance till date, while its coal import terminal at Dahej Port, had been connected by railways, a move that will help reducing logistics costs for transporting coal to the region and rest of India.

Sonata Software launches JV operations in Qatar

Technological solutions provider, Sonata Software has launched its operations in Qatar under Sonata Software (Qatar), a JV with Qatar-based Mohammad Nasser Abdullah Al MISNAD. The JV will provide business-focused technologies and solutions to companies in Qatar. The JV will operate from Doha and will build on a three-year relationship with a leading national airline where there is an embedded Sonata team of 50 professionals. It will focus on delivering services around ERP implementation and support, e-commerce, collaboration solutions, mobility and cloud solutions to enterprises in Qatar.

Reliance Industries' KG-D6 gas output dips

Reliance Industries' eastern offshore KG-D6 gas fields have seen output dipping to around 40 million standard cubic metres per day, which is the same level as 2009 when the company had started production. Dhirubhai-1 and 3 (D1 and D3), the first two of the 18 gas discoveries in the Krishna Godavari basin KG-DWN-98/3 or KG-D6 block in the Bay of Bengal that have been put on production, and MA oilfield in the same area produced 40.35 mmscmd in the last week of November, according to the status report filed by the company with the oil ministry here. The output in the week ending November 27 comprised 33.47 mmscmd from D1&D3 gas fields and 6.88 mmscmd from MA oil field. The KG-D6 production is lower than 61.5 mmscmd rate achieved in March 2010 as drop in pressure in the wells and an increased water ingress lead to lower per-well gas out. The report said of the 18 wells drilled, completed and put on production on D1&D3, four wells — A2, B1, B2 and B13 -- had to be shut or closed due to high water cut/sanding issues.

Wipro case verdict may put more tax burden on IT cos

Shreya Roy
Bangalore, Dec 12

KARNATAKA HIGH COURT FOUND WIPRO TO BE IN DEFAULT OF ITS OBLIGATIONS TO WITHHOLD TAXES ON PAYMENTS MADE TO RESEARCH FIRM GARTNER, FOR ACCESSING THE LATTER'S ELECTRONIC DATABASE IN THE UNITED STATES AND IRELAND

ONLINE ROYALTY

- In October, the Karnataka High Court had ruled that payments for software imports, including accessing online data, would qualify as royalty, subject to tax deducted at source, or withholding tax
- Wipro's payment to research firm Gartner between fiscal 2001 and fiscal 2003, which was the period under consideration in the case, was close to ₹3.75 crore
- The income tax department had demanded ₹52.9 lakh to be paid towards royalty on these transactions, and an additional interest of ₹11.3 lakh from Wipro in 2003

SOFTWARE companies are looking at additional tax burden, with the Karnataka High Court ruling that payments made for subscription to online databases, such as those maintained by advisory firms and industry information portals, would be taxed as royalty.

According to tax analysts, the ruling would affect all firms that source and pay for information online.

The high court verdict came in a case involving Wipro and the income tax department, in which the court found Wipro to be in default of its obligations to withhold taxes on payments made to research firm Gartner, for accessing the latter's electronic database in the United States and Ireland.

"Every company sources electronic data now, and if a company has to start withholding taxes every time it does so, businesses will be impacted," says Vikram Bapat, executive director, tax and regulatory services, PricewaterhouseCoopers, India.

While an aggregate of expenditure by IT firms on data subscription was not available, as per the high court order, Wipro's payment to Gartner between financial year 2001 and financial year 2003, which was the period under consideration in the case, was close to ₹3.75 crore. The income tax department had demanded ₹52.9 lakh to be paid towards royalty on these transactions, and an additional interest of ₹11.3 lakh from Wipro in 2003.

"The total sum charged to Wipro could now be backdated to day one," says KR Girish, partner tax and regulatory services, KPMG India.

In October this year, the Karnataka High Court had ruled that payments for software imports would qualify as royalty, subject to tax deducted at source, or withholding tax. This move was said to have placed an aggregate tax liability of over $1 billion on the IT sector.

Referring to this judgement, the court stated in mid-October, that payments for accessing online databases would also be in the nature of royalties, as there is a transfer of copyright.

According to a Supreme Court judgement passed last year, Indian firms are required to withhold taxes from payments made to non-residential companies only in case of royalties, and not for all cross-border transactions. The authority to determine what constitutes 'royalty', however, vests with the high courts.

The ruling has also raised questions about accessing domestic databases, such as job portals used frequently by companies, since the definition of royalty is common to both domestic as well as international sources.

"The definition of royalty is the same for both residents as well as non-residents. Considering that, there is a question of whether this will apply to domestic subscriptions as well, online or otherwise," says Abhishek Goenka, a partner with professional services firm BMR Advisors.

Wipro's contention in the case was that the rights conferred by Gartner was only for access to the database, analogous to a subscription made for a journal or a magazine, and did not amount to any transfer of copyright.

Consequently, payments made would only constitute business income of Gartner, and as such, could not be held as royalties. The I-T department, on the other hand, had argued that access to the database was granted to Wipro only through the license paid for, without which, usage of data would have been viewed as infringement of copyright.

Analysts are now asking if the court would have held the same view if the transfer of information had been in a physical form such as a book or a magazine, rather than an electronic medium.

Responding to an email query by *The Financial Express*, a Wipro spokesperson stated, "The hon'ble high court has relied on its own order involving payments for shrink wrapped software, which the company did not have an occasion to distinguish before the high court in its case involving subscription payments for accessing commercial database and information. The company has been advised that a Special Leave Petition be filed before the supreme court."

Intel set to leverage India unit for R&D in tablets, phones

Ajay Sukumaran

Bangalore, Dec 12: The Indian arm of American chipmaker Intel is gearing up for a greater share of the company's R&D work into key areas such as tablets and phones, having increased its headcount by nearly a third over the past year.

The recruitment drive was the biggest since 2003-2004, around the time the India arm began work on its first major chip development programme, said Praveen Vishakantaiah, president Intel India.

"In 2011, we have grown (headcount) about 30%," Vishakantaiah told *FE*. "We are spending a lot of time making sure that we are able to integrate the huge number of people we have brought in." Intel, whose Bangalore centre is the company's largest non-manufacturing site outside of the US, currently has over 3000 people, an increase of around 500-600 over its staff count in 2010.

The centre is focussing on the 14 nanometre process technology such as servers or integrated graphics besides the system on a chip platforms for tablets and phones. The 14 nanometre process technology refers to the chip size that would follow the 22 nanometre chips expected next year.

"Clearly, in the system on a chip platforms for tablets and phones there has been significant hiring," Vishakantaiah said, adding that the company has hired across different R&D segments such as graphics and server development.

Though rivals such as ARM dominate the smartphone market globally, Intel is bullish on the segment with upcoming launches of smartphones and tablets in 2012. "The push into new market segments such as tablets and handsets creates a need for more and more system-on-a-chip (SOC)," said Sergis Mushell, principal research analyst, CPU and GPU, at Gartner. The SOCs typically do not involve architectural changes.

"When you are creating SOC you would need to change pieces and parts and use different IPs and put them together and make many variations. So the core architecture of the CPU remains the same," he said. "In India, you have the skill sets to create those SOC based on different IP blocks."

> We are spending a lot of time making sure that we are able to integrate the huge number of people we have brought in
>
> **— Praveen Vishakantaiah,** president, Intel India

"While the cost savings could be significant, the software engineering talent available in India might also be a reason for staffing up. There are many software elements they need to offer for systems and it is India where you have a lot more software engineering people you could leverage to produce these software," he added.

Since its first major chip development programme Whitefield was abandoned midway in 2005, the Intel India Development Centre has played a key role in designing the company's first six core Xeon processor and the more the recent Xeon E7 processor family.

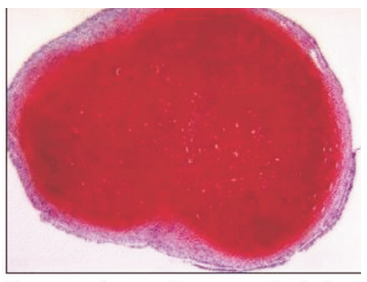
"What's driving the hiring is we have been able to deliver on critical products in the last few years so there's a lot more confidence in what India can deliver," said Vishakantaiah.

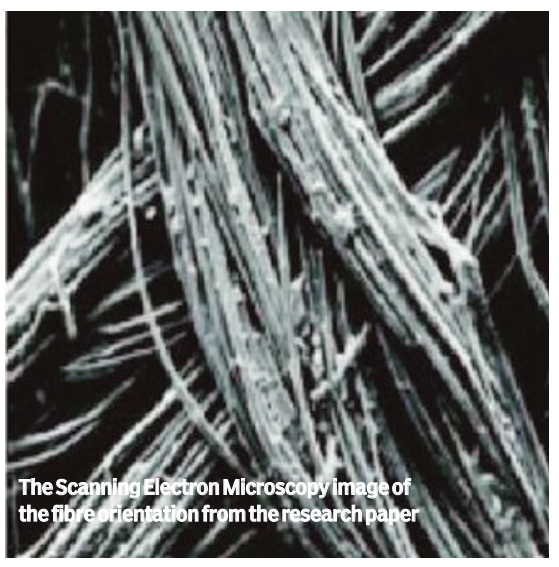
FE Labs

REINVENTING THE WHEEL

Researchers eye the 'silk route' to treat slipped discs


Goat Intervertebral disc


Tissue engineered intervertebral disc


The Scanning Electron Microscopy image of the fibre orientation from the research paper

A tissue-engineered inter-vertebral disc constructed using silk fibre and nasal chondrocyte (cartilage from the nose) cultures was found to be as strong as an IVD from a goat, while still being flexible enough

WHAT has silk got to do with a slipped disc? Early-stage research at the Indian Institute of Technology-Delhi (IITD) potentially points to a key role for the shiny protein fibre in the attempt to find a solution to the painful vertebral injury that affects millions across the globe.

Silk fibres are being researched for various tissue engineering techniques like developing a ligament but the IITD study is the first to use them as a scaffold to replicate the anatomical alignment of cells in the outer part of a inter-vertebral disc (IVD) tissue.

A slipped disc condition refers to the degeneration of an IVD tissue, the tissues found between each vertebra of the spine that give it the flexibility to bend and turn in different directions. As people age, the water-rich cartilage that forms the core of an IVD dehydrates and becomes rigid, pushing out the surrounding fibrous tissue called the annulus fibrosis (AF). The AF, in turn, puts pressure on surrounding nerves, causing pain.

In a paper published by India's National Academy of Sciences, scientists at the IITD's textile technology department demonstrated that a tissue-engineered IVD constructed using silk fibre and nasal chondrocyte (cartilage from the nose) cultures was as strong as an IVD from a goat while still being flexible enough.

Replacing a degenerated IVD with a ceramic disc is the common medical treatment for the condition, but the rigid structure could transfer the load to neighbouring discs, says IITD assistant professor Sourabh Ghosh, who specialises in tissue engineering. Attempts have been made by scientists to regenerate AF tissues using scaffolds made of other material but they do not simulate the fibre alignment accurately, he says.

"For IVD, this is probably the first report in which we are orienting the silk-fibre alignment in different layers in criss-cross pattern simulating anatomical orientation," says Ghosh. "For this particular tissue we need very high elastic property and flexibility. Silk has wonderful mechanical strength compared to many other polymers, so we thought it would be an ideal candidate."

In the paper, by lead author Maumita Bhattarcharjee, the researchers demonstrated the construction of an IVD by culturing the hydrogel and then surrounding it with a few layers of silk fibre using a special winding machine that replicate the alignment of the AF. They then used human nasal cartilage, obtained from donors, to develop the disc scaffold.

Their silk-fibre alignment helped the cells attach and grow along the specific direction necessary to replicate the tissues. The strength of the IVD satisfactorily matched that of a disc from a goat that was freshly obtained from a local slaughterhouse, says Ghosh. But he points out that a goat's disc cannot be directly compared with a human spine, which is vertical and also because each IVD has a different dimension.

In a second paper that has been submitted for publication, the team has reported that they were able to modify the surface chemistry of the silk scaffolds, by attaching bioactive molecules to produce type-II collagen and aggrecan, the proteins that make up the robust cartilage tissues, like in the IVD.

Ghosh says the next step would be to apply for permission to conduct animal trials, before which they will have to prove that the IVD is compatible to immune cells. "We are planning to start some experiments from January in Switzerland. First we have to prove that our IVD is absolutely bio-comfortable and it should not activate any immune cells," he says. The project is funded by the department of science and technology and the Indian Council of Medical Research.

Silk fibres have been widely tested for engineering tissues such as blood vessels, articular cartilage, meniscal tissue and bone because of its excellent bio-compatibility and mechanical properties, says Deepa Ghosh, group head of the tissue engineering department at Reliance Life Sciences. "Due to its high thermal stability, silk biomaterials have the unique property to allow its processing over a wide range of temperatures up to about 250°C without the loss of functional integrity."

Regenerative medicine includes various technologies involving tissue-specific cells (somatic cells), stem cells and tissue-engineered products aimed at treating many diseases that result from the damage of terminally differentiated cells. "Perhaps the most potential application of this technology is to treat diseases such as Alzheimer, bone and spinal cord injury, stroke, heart diseases, diabetes, osteoarthritis and rheumatoid arthritis." says Deepa Ghosh, adding that donated organs and tissues are often used to replace ailing or destroyed tissues but the need far outweighs the supply. "Researchers are trying to create organs such as urinary bladder and liver in the lab with the hope that one day these would do away with the need for organ donors."

Tissue engineering essentially means using a stem cell or a somatic cell together with a biodegradable scaffold, which, being a three-dimensional structure, helps the cell better produce the extra-cellular matrix, says Anish Sen Majumdar, chief scientific officer at Stempeutics, a Bangalore-based stem cell research company.

"Extensive research is currently going on throughout the world to understand which particular cell... either stem cell or embryonic stem cell or mesenchymal stem cell or some cells that are not stem cells but differentiated cells... would be best for what treatment," says Majumdar. "We are trying to figure out that what cells, along with what scaffold would be the best application for a particular disease."

— Ajay Sukumaran

EXPERTSPEAK

SOURABH GHOSH, *assistant professor, Department of Textile Technology, IIT Delhi*

For intervertebral disc, this is probably the first report in which we are orienting the silk fibre alignment in different layers in criss-cross pattern simulating anatomical orientation. For this particular tissue we need very high elastic property and flexibility. Silk has wonderful mechanical strength compared to many other polymers, so we thought it would be an ideal candidate

DEEPA GHOSH, *group head, Tissue Engineering Department, Reliance Life Sciences*

In view of its excellent bio-compatibility and remarkable mechanical properties, silk fibres have been widely tested for engineering tissues such as blood vessels, articular cartilage, meniscal tissue and the bone. Due to its high thermal stability, silk biomaterials have the unique property to allow its processing over a wide range of temperatures up to about 250°C without the loss of functional integrity

STATFACTS

THREADBARE

- Silk fibres being studied for potential use as a scaffold to replicate the anatomical alignment of cells in the outer part of a inter-vertebral disc (IVD) tissue
- Silk has wonderful mechanical strength compared to many other polymers, so experts thought it would be an ideal candidate for IVD tissue
- Replacing a degenerated IVD with a ceramic disc is the common treatment for slipped disc, but the rigid structure could transfer the load to neighbouring discs
- IIT Delhi researchers orienting silk-fibre alignment in different layers in criss-cross pattern simulating anatomical orientation
- Experts hope to prove that their lab-built IVD is bio-compatible before they apply for permission for conducting animal trials
- Regenerative medicine includes various technologies involving tissue-specific cells, stem cells & tissue-engineered products