

Japan’s century-old Sharp bets future on foreign takeover

TOKYO: In 1916, Sharp got its start making belt buckles and sharpened pencils — hence the name.

But a century later, the Japanese firm, which ballooned into a global consumer electronics giant, found itself in dire straits, saddled with huge debts and mounting losses.

A restructuring plan failed to stop the bleeding and on Thursday Sharp agreed to be taken over by Taiwanese multinational Hon Hai Precision, the world’s biggest electronics supplier better known as Foxconn.

The offer would be the first foreign takeover of a Japanese electronics giant, marking a blow to the once-mighty sector populated by other global brands including Sony and Panasonic.

The deal stumbled Friday as Foxconn’s parent company said it would delay signing the pact to review new information it had received about Sharp, but analysts widely viewed a tie-up as all but done.

For years, Sharp — whose name once graced the jerseys of Manchester United players — had remained true to its humble pencil-and-belt-buckle roots.

But after the 1923 Tokyo earthquake, which left more than 100,000 dead, company founder Tokuji Hayakawa expanded his little firm by making radio equipment and other items that could be used in a similar emergency.

Hayakawa, who died in 1980, lost his wife and two children in the quake.

After WWII, Sharp became the first



INDUSTRY BLOW: A logo of Sharp Corp. is seen above Chinese tourists standing outside an electronics retail store in Tokyo. (Reuters)

Sharp’s key technological blessing today has also proven to be a curse: It produces LCD screens favored by industry giants Apple and Samsung, but lacks the huge research and development funds necessary to keep ahead of the competition.

Japanese firm to sell televisions.

This tradition of innovation continued throughout the 1970s, with the mass production of liquid crystal display (LCD) screens for calculators — which in the 1990s was adapted for computer screens and later for smartphones and tablets.

Sharp is a global leader in those small and medium sized screens, which are a key asset for Hon Hai.

The companies have worked

together for years on large-sized screen technology, including for televisions, and jointly operate an LCD panel plant in Japan.

But over the last decade Sharp bet almost everything on LCD, churning out giant screens from cutting-edge factories and boasting the most advanced technology in the world.

“The problem is they invested too heavily in LCD screens,” said professor Akio Makabe of

Shinshu University.

“For a while that was fine, but with the financial crisis of 2008-9 everything changed. The market became more competitive in terms of price and Sharp wasn’t the best placed to deal with that,” he said.

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necessary to keep ahead of the competition.

In 2012, a state-backed fund created Japan Display, which aimed to merge Sharp’s small- and medium-sized LCD screen business with those of rivals Sony, Hitachi and Toshiba.

The new company was seen as a way for Japanese firms to mount a strong challenge to overseas rivals. But Sharp refused to take part.

“LCD was absolutely central to Sharp so (a merger) was tough to accept,” Makabe said.

But the firm was not in a position to buy out its local LCD competitors, he added.

Sharp’s decision to sell to a Taiwanese firm made clear it was turning its back on a common move by Japanese firms to merge in a bid to fend off overseas competition.

“This sort of consolidation probably wouldn’t be workable,” said Kunio Saijo, a senior technology journalist at the leading Nikkei business daily, before the Hon Hai deal was announced.

Makabe at Shinshu University said the offer from Hon Hai’s colorful billionaire founder Terry Gou was “financially superior,” and noted that both firms count iPhone Apple as a major client.

The Japan-based solution “would also have meant the involvement of (Sharp’s creditor) banks, which wouldn’t have been ideal,” he added.

But even a foreign buy-out does not guarantee Sharp’s future.

LCD technology is facing a stiff challenge from rival technologies including organic light-emitting diodes (OLEDs). Sharp and Hon Hai plan to invest billions of dollars in OLED technology.

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CONNECTED DEVICES: People play table football on a virtual screen at Intel stand in Barcelona. (Reuters)

Six key gadgets and trends at Mobile World Congress

BARCELONA: The Mobile World Congress, the sector’s biggest trade fair which wrapped up in Barcelona, was dominated this year by the arrival of virtual reality, advances in the development of ultra-fast 5G networks and connected objects.

ROBOT-TELEPHONE THAT READS YOUR MESSAGES: Japanese firm Sharp presented a tiny prototype robot called RoBoHon that doubles as a mobile telephone. It has voice recognition and is able to answer questions by searching online when asked, can take pictures and read text messages you receive out loud.

HOLOGRAMS MAKE AN APPEARANCE: Which science fiction fan has not dreamed of being able to speak to someone far away by hologram? Several firms believe this will be possible when faster 5G mobile networks are running. Among them is US start-up Leia Inc, named after the heroine of the “Star Wars” franchise, which presented a system that creates a 3D image that appears to float above the screen of a tablet.

SK Telecom’s stand featured a beam of green light which caused different images to appear inside it such as a dolphin, a heart or a gymnast’s movement.

INVISIBLE CHARGERS: Say good-bye to tangled wires and misplaced charging cables.

Spanish start-up MiniBatt presented a smartphone charging system that can be installed in any piece of furniture, regardless of the material. To charge a device, you just have to put it on top of a desk, chair or table. The company hopes to convince furniture makers to incorporate the charger into its designs.

SMARTPHONE MAKERS BET ON VIRTUAL REALITY: LG unveiled its new virtual reality headset, the 360 VR, which works with its new G5 smartphone.

Rival South Korean firm Samsung revealed its new flagship smartphone, the Galaxy 7, via a virtual reality presentation that used its Gear VR headsets.

Among the most visited stand was South Korea’s SK Telecom, which offered a virtual reality ride under water in a yellow submarine, and another by Samsung featuring a virtual reality rollercoaster ride using its Gear VR headsets.

5G REMAINS KEY FOR SECTOR: Several equipment makers and telecom operators offered demonstrations of advantages the new network will bring such as lower latency, or reaction times.

But there were no major announcements on the development of ultra-fast 5G mobile networks, due to be rolled out in 2020 following large-scale testing in 2018.

The European Union did say it will launch an action plan to develop 5G networks and ensure Europe does not fall behind other regions as it did with the 4G network, which is in widespread use at the moment.

MORE CONNECTED OBJECTS: Connecting appliances and other objects to the Internet is the focus of more and more discussions, despite the delays in making it happen.

Research firm Gartner forecasts that the market for Internet of Things services will top \$101 billion (92 billion euros) this year, nearly 30 percent more than the \$78 billion that businesses spent last year.

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Apple asks judge to vacate order on locked iPhone

WASHINGTON: Apple Inc. has asked a federal magistrate to reverse her order that the company help the FBI hack into a locked iPhone, accusing the federal government of seeking “dangerous power” through the courts and of trampling on its constitutional rights.

The filing represents Apple’s first official response since the judge’s order last week and builds upon arguments voiced by the company’s chief executive and supporters.

It marks the latest salvo in a court fight that could create meaningful precedent and establish new legal boundaries in the policy between national security and digital privacy.

“No court has ever authorized what the government now seeks, no law supports such



unlimited and sweeping use of the judicial process, and the Constitution forbids it,” Apple said.

The Justice Department is proposing a “boundless interpretation” of the law that, if left unchecked, could bring disastrous repercussions, the company warned in a memo

US Federal agents haven’t been able to open the phone of Syed Farook because they don’t know the passcode.

submitted to Magistrate Sheri Pym that aggressively challenges policy justifications put forward by the Obama administration.

“The government says: ‘Just this once’ and ‘Just this phone.’ But the government knows those statements are not true,” lawyers for Apple wrote.

They said that if Apple were required to build the software the FBI wants, “criminals, terrorists and hackers will no doubt view the code as a major prize and can be expected to go to considerable lengths to steal it.”

A hearing is scheduled for next month.

The dispute broke into public view last Tuesday when Pym directed Apple to help the FBI gain access to a phone used by one of the assailants in the San Bernardino, California, attacks.

— THE ASSOCIATED PRESS



Baidu shares jump as quarterly earnings shine

SAN FRANCISCO: Baidu shares jumped after the Chinese Internet giant reported quarterly earnings that topped Wall Street expectations.

“2015 was a touchstone year for Baidu: we made significant progress in broadening our online marketing platform and further extending our reach into transactions services,” Baidu CEO Robin Li said.

“Even as China’s overall growth slows, services and domestic consumption are growing.”

Baidu reported profit of \$24.7 billion yuan (\$3.8 billion) in the quarter in what amounted to a 663 percent increase from the same period the prior year.

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Wonder material sparks rush to develop new electronics

BARCELONA: Bendable mobile phones, quick-charge batteries and unbreakable touch screens — technology firms are racing to harness the potential of graphene, a wonder material which scientists say could transform consumer electronics.

A fine sheet of pure carbon, graphene is as thin as an atom, making it the skinniest material known.

At the same time though, it is 100 times stronger than steel, hugely pliable and can conduct electricity and heat better than anything else.

“There are other materials which do have one of those properties each,” physicist Kostya Novoselov — who first isolated graphene in 2004 — said at the Mobile World Congress, the sector’s biggest trade fair, in Barcelona.

“What is amazing here is that all those qualities are combined in one simple crystal.

“Of course that immediately leaves us with a number of possible applications.”

Novoselov, a Russian-born British citizen, and his colleague at Manchester University Andre Geim won the Nobel Prize for their work with graphene, sparking a flurry of interest in the new material.

The number of patents involving graphene soared from under 50 in 2004 to around 9,000 in 2014, according to Andrew Garland of research firm Future

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Markets, who puts out a twice-yearly report on the material.

“Most are in electronics,” he said.

Samsung, the world’s number one smartphone maker, has taken out the most graphene patents — over 490 — followed by China’s Ocean’s King Lighting and IBM.

While its real-world uses so far remain



HIGH-TECH AUDIENCE: People are seen near the main entrance during the Mobile World Congress in Barcelona. (Reuters)

modest, research into possible applications for the material picked up steam in Europe after the European Union set aside one billion euros (\$1.1 billion) in 2013 to be spent over 10 years to investigate.

“We believe we require another ten years to get to the point where a lot of devices will start being on the market,” said Andrea Ferrari, director of the Cambridge Graphene Center at the University of Cambridge.

The trade fair in Barcelona for the first time had a pavilion dedicated to graphene research centers and start-ups, a sign of the growing importance of the material to the mobile industry. Graphene is so pliable scientists predict it will one day make flexible phones possible.

British firm FlexEnable showcased a smartwatch prototype made using graphene that wraps around a user’s wrist and features a full color LCD display that

is capable of running video content.

“This sort of display technology is basically ushering in a completely new generation of mobile devices because we can start folding electronics,” said the company’s technical director, Mike Banach.

British tech firm Zap&Go, meanwhile, displayed a graphene charger for mobile phones and tablets that takes just five minutes to fully load with power.

The company is making 2,000 versions to give to journalists and to people who pre-order them, said the company’s marketing director, Simon Harris.

“What we have here ultimately could replace the lithium-ion battery in billions of devices. It needs to come down in size and up in power,” he added.

Graphene is so strong and thin that researchers believe they will one day be able to use it to make unbreakable screens for mobile devices.

“With just a few kilos you can replace all the touchscreens in the world. With just a few layers on top of each other you can support an elephant,” said Vittorio Pellegrini, director of the Italian Institute of Technology’s Graphene Labs.

“Graphene is really a material that allows our imagination to fly. There is no limit to what you can do,” he added.

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