

BUSINESS LIFE SCIENCE & TECHNOLOGY

INNOVATION

When the cutting edge frightens the owners

New gadgets from Samsung and LG could prove too advanced for the average consumer and force the companies to change focus, write Andrew Gowers, Guy de Jonghues and Anna Fifield

A local television advertisement for LG Electronics of Korea features a father and son on a sofa watching soccer. They watch as Park Ji-sung, the Korean Manchester United player, lines up in front of the goal in a live match. The father does the unthinkable – he pushes the power button.

"What side do you think he'll kick it into?" the dad asks his son.

"This is a live broadcast!" Park exclaims from the television set. Dad opts for right, the boys say, and when he shoots, Park yells: "It's in the center".

LG's new X-canvas hard disc recorder allows viewers to stop and start live broadcasts and watch programmes in their own time without the need for tapes or settings. It is part of the new wave of home entertainment products the company hopes will soon become as vital as the video recorder was in the 1980s.

For LG and its compatriot Samsung Electronics, spotting trends is top priority.

"In a high-tech business

"In many cases it is up to us to decide how these things can be useful to consumers"
YUN JONG-YONG



like the one we're in, what is more important than research and development?" asks Yun Jong-yong, chief executive of Samsung Electronics, which specialises in semiconductors, mobile phones and flat screens. "We have to be able to develop next-generation products before our competitors."

The South Korean giants are done business by the management textbook –

moving up the market and evolving from producers of run-of-the-mill "me-too" consumer commodities to cutting-edge consumer goods.

The name Samsung in particular, but increasingly LG as well, has become synonymous with cool design and cutting-edge technology. Samsung has produced phones featuring seven-megapixel cameras and LG has its hard disc recorders and Porsche phones, which feature car sounds.

But both companies are now at a critical juncture as they face a fundamental contradiction: they are concentrating on high-end products, particularly in mobile phones, but ever-smarter gadgets are becoming more intimidating and difficult to use for the average customer. These markets are also becoming saturated and new growth is to be found at the LG end.

But for Samsung and LG, number three and five respectively in the global handset market, avoid a Sony-style post-Walkman product crisis?

"This is the dilemma you

로본능

Digital
Digitizing

Too high-tech: Samsung and LG Electronics are worried that the growing

do market research because often consumers don't know what they want," says Lee Hee-gook, chief technology officer at LG Electronics, best known for home appliances, mobile phones and flat screens.

"In many cases it's up to us to decide how these things can be useful to consumers."

No product exemplifies this dilemma better than the mobile phone, analysts say.

"They are developing these all-seeing, all-doing handsets that can do everything but shine your shoes, but does the phone-using public really want that level of capability?" asks Mr Morris, a business adviser at Industrial Research and Consulting in Seoul. "The problems are daunting."

Both Korean companies acknowledge that they are not always sure there is a demand for their increasingly impressive products.

"Sometimes it's difficult to

son capability, but as Mr Yun puts it, the "unknown question" is how many people want to watch TV on their phones.

"A lot of functionalities could be put in a PDA [personal digital assistant] but if you're in the living room what do you want to watch a movie on? You'd rather watch it on a big screen than a three-inch one," he says.

Undeterred, Mr Yun remains confident that one day all the technologies will converge. "I'm in agreement with those people who argue that everything is going to be inside a handset. It is technologically and practically possible," he says.

"The question is, how well will they use these things? People's needs are different so we need to think about what is the device that we can use to enable them to watch or utilise whatever

sophistication of their products will put off buyers

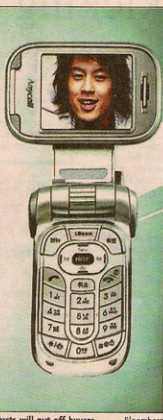
device they need," Mr Yun adds.

"Even with this uncertainty, the fierce competition in their core businesses – particularly phones and flat screens – means both LG and Samsung are spending heavily on production as well as research and development."

Samsung is still set on dominating a risky business. It last month revealed plans to invest \$300m over the next seven years on new production lines and a research centre for semiconductors.

The company spends 9.2 per cent of its revenues, or \$5.4bn, on research and development, compared with \$1.8bn or 5 per cent of revenues at LG.

While striving to convince customers that they need and can use their products, companies often have to



Bloomberg

When considering the risks in entering new product areas and investing in expensive new plants, both companies have to be careful to benchmark themselves against global leaders, as well as seeing where they went wrong.

For Samsung, that means IBM, AT&T and Lucent. "These companies not only invested in companies that are fundamentally related to their business but also in a lot of R&D in basic technologies," Mr Yun says.

"However, I don't believe that they were as successful in making these technologies their own. IBM developed the PC but it doesn't dominate the market."

LG looks to GE and Toyota, "two great companies", as benchmarks.

"GE says it really respects Toyota and GE openly acknowledges that it learned great things from many other companies," Mr Lee says.

"And Samsung is very disciplined and a very fierce competitor. They certainly give us a lot of competition in all our main areas and keep us fighting."

Samsung has already fought its way into the pack of global leaders and LG is on its way up, but having largely led behind the low end of the market, analysts say both companies must be careful not to become caught in the middle.

"That's an issue we've been paying a lot of attention to," says Samsung's Mr Yun, referring to mobile phones.

"In emerging markets, demand is for low-end products," he adds. "But as penetration increases, there will be more demand for advanced products. So even in emerging markets we are differentiating our products in terms of functionality and design."

But in the heavy rush to retain market share and keep at the cutting edge, reason can sometimes fall by the wayside.

"In my opinion, Samsung is doing too much – maybe it's a bit for everyone to pause and reflect," says Mr Lee of LG, which has invested more than \$4bn in a seventh-generation liquid crystal display (LCD) plant north of Seoul with partner Philips.

"At any point you have to get realistic and check that what you're doing makes sense."

TWIN PATHS TO THE TOP TECHNOLOGY

SAMSUNG
■ Samsung's top priority is research and development, especially for miniaturisation. It aims to accelerate the supply chain and decision-making processes. That cannot be done without top-notch staff, which raises recruitment and training essential.

■ Han Jaegyoung, Samsung chief executive, says: "Whatever business model we develop, the future changes quickly so I'm not sure what will come up. But I believe that if you continue to work hard, something will emerge."
■ Samsung's benchmark companies include IBM, AT&T and Lucent.

LG ELECTRONICS

■ Development follows the DfC strategy – eliminate features that raise the [standard] reduce [size], create [new features].

■ There are four key considerations for electronics companies: function, design, performance and quality. But most companies are already focusing on these factors, so LG needs to differentiate itself by product or brand.

■ LG's benchmark companies include GE and Toyota.