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Android – The real disruptor

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- Google, through its Android mobile platform, is a bigger disruptor to the mobile phone market than Apple
- Android's exceptional market share momentum in H110
- Google's apparent benevolence is not as benign as it may look for the mobile industry

The 'platform war'

Apple's explosion onto the handset scene has had a profound impact on the balance of power within the industry. However, the rapid emergence of Google's Android is in our view a much bigger disruptive threat to the mobile device industry. From Q209 to Q210, sales of Android-based devices went from 2% to 17% of global Smartphone volumes, matching Blackberry and overtaking Apple.

A new business model

The obvious difference between Android and its competitors in this 'platform war' is that Google makes no direct revenue from the sale of a device. Unlike Apple's iOS, RIM's Blackberry OS and arguably Symbian (Nokia), Android is not tied to a handset OEM and unlike Windows Mobile, no licensing fee is charged. In this respect, Google is in-effect subsidising the industry.

Google's 'benevolence' is not benign

The Android operating system is not an act of benevolence – Google will want payback. Near dominance of search has enabled Google to reap huge financial rewards from advertising and associated services, leaving scraps for the rest. Control of the mobile operating system (not to mention tablets, set top boxes etc) will be leveraged into revenue streams from advertising and possibly content and applications.

Implications for the supply chain

Android's impact is already being felt – early adoption of the platform has enabled HTC to move rapidly up the ranks, and has been a key element to restoring economic viability to Motorola's handset operations. Nokia and RIM have undoubtedly suffered and Apple may well be next. In the short term the cost benefit of a 'free', user friendly OS is certainly boosting demand for smartphones and components and data usage. However, the emergence of a dominant platform would have a commoditising effect on the handset industry and Google's need to monetise the platform would also compromise the opportunity for both operators and content providers.

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The disruptors

The incumbents of the mobile phone industry have seen-off many 'traditional' new entrants over the years. Notably, the emergence of a hundred or so new Chinese manufacturers in 2004 ended in tears for most, despite obviously lax IP standards and low labours costs. At that time, the barrier to entry in the mobile phone industry was (and still is, in the low-end segment) scale for purchasing power and R&D funding, distribution reach and operator relationships. Even larger incumbents such as Motorola and Ericsson found it difficult to compete with Nokia on any of these metrics, never mind a new entrant.

Convergence created the opportunity for new entrants

Nokia's reversal in fortunes, combined with the emergence of RIM then Apple, stands testament to the fact that the competitive advantage gained from logistics excellence has receded, superseded by the ability to enable compelling converged services. The margin opportunity of a $300-600 device compared to an overall blended average of say $100 has also reduced the historical barrier of scale.

Meanwhile, mobile phone chipset technology has commoditised to such an extent now that it turns out it is relatively easy to bolt-on an off-the-shelf communications chipset to an established electronics product. We are of course being simplistic, but the point is borne out: Apple already had iTunes, the iOS operating system (and user interface which was easy to port to a small screen) and the industrial design excellence. Turning an iPod into an iPhone was not nearly as huge a technological barrier for Apple in 2005 as it would have been a few years earlier.

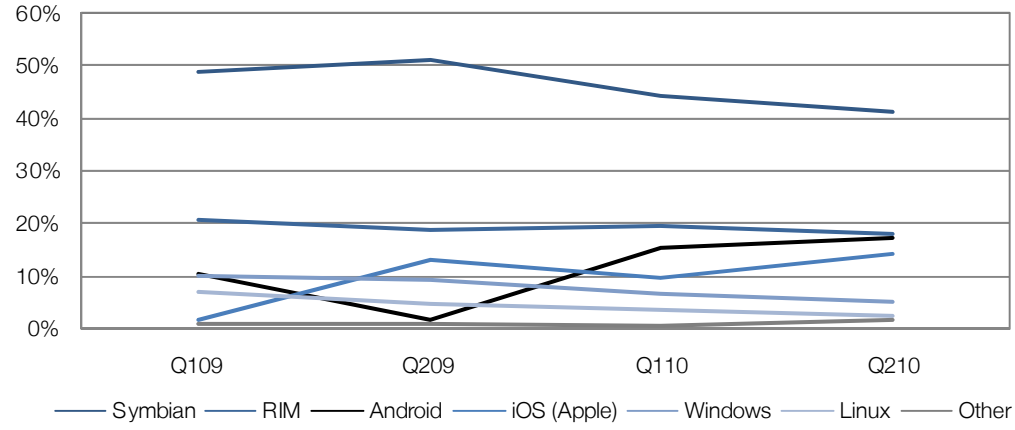
Google's entrance disrupts things again

Google's 2005 acquisition of Android jumpstarted its foray into mobile and gave it an instant OS developed by some of the team who worked at Danger and created the successful 'Sidekick' device in the US. Through the Open Handset Alliance, launched in November 2007, Google secured support of key industry power brokers, and the first phone to run the Android operating system, the HTC Dream, was released on 22 October 2008.

Unstoppable momentum?

In historical terms, few technology companies have been so successful in new markets so quickly. From Q209 to Q210 sales of Android-based devices went from 2% to 17% of global Smartphone volumes, putting it on a par with Blackberry, which had a 10-year head start. In the US, volume sales have now even over taken Apple. According to NPD Group, Android accounted for 33% of smart phone volume sales unit sales in Q2, with BlackBerry OS second at 28%, and Apple's iOS ranked third with 22%. That momentum seems to have continued well into Q3: on the Q2 conference call, Google management confirmed that about 160k Android devices are selling daily, equating to a quarterly run-rate of over 14m units in July.

Exhibit 1: Market share



Source: Gartner

It seems evident that Android's rise has Aside from Nokia's woes, this momentum from Android vendors seems in stark contrast to Apple's stagnating market share. Apple bulls will point to the product refresh (iPhone 4) that occurred towards the end of Q2, which could mean deferred purchases, though it is as likely that Apple's dogged reluctance to introduce a lower-priced new model is a major factor here.

Competitive offerings due for launch in H2 (but it may be too late)

So is this momentum unstoppable? Certainly H210 will see some significant new developments in the platform competitive landscape (detailed below), but such is the rise in Android's volumes, application support and consumer mind-share, time is running short. The Q4 selling season in 2010 will mark a critical phase for protagonists – particularly Nokia and Microsoft – to see if they can remain viable platform players, or whether a substantial change in strategy is required.

Symbian is launching its long-awaited Symbian3 OS upgrade, which will be used in Nokia's new N8 phone (its flagship Symbian phone) due to be launched next week. Since February, Symbian has been offered on an open source basis, but with Samsung migrating towards Android and its proprietary Bada, Nokia is now the only major OEM. Moreover, Nokia's commitment to Symbian is unclear. The N8 will sit alongside Nokia's N900 product which uses Nokia's proprietary Linux OS Maemo (which has recently been merged with Intel's Linux development efforts to form Meego). One can never discount a company of Nokia's reach, but the strategy looks muddled. In our view it is not beyond the bounds of possibility that Nokia could use Android (or even Microsoft given the change of CEO), especially if Symbian continues to lose market share. Supporting this view is the fact that Nokia divested its Symbian Services Unit in mid-2009 to Accenture.

The first phones with Microsoft's new Windows Phone 7 (which was announced at 3GSM in February) are likely to appear for the Q4 sales season. Taiwan-based HTC has been one of Microsoft's core customers over the years, but it seems that HTC is now shifting to Android. Moreover, HTC typically differentiates its products by overlaying its own proprietary user-interface on top of the OS, but Windows Phone 7 will not allow this configuration, reducing HTC's scope to differentiate.

The mobile industry will resist the emergence of a dominant force

Few, if any, protagonists in the mobile industry want a dominant operating platform supplier to emerge, particularly one owned by such a powerhouse such as Google. Indeed, the fear of the industry adopting a PC like structure dominated by one OS supplier (Microsoft) and one chip supplier (Intel) has been the driving force behind many industry alliances – the original Symbian alliance for example and even the Open Handset Alliance, which supported Android. While Google's apparent benign position has supported broad-based adoption, resistance will build as its hand continues to strengthen. Consequently we do not believe that rival platforms should be written off just yet, although we feel business models will have to change.

Exhibit 2: Operating systems

Note: Reflects Windows Mobile.

	Android	iOS	Symbian	Blackberry OS	Windows Phone 7	Meego
Availability	Open Source	In-house	Open Source	In-house	Paid Licence	Open Source
Ownership	Google	Apple	Symbian Foundation	RIM	Microsoft	Nokia, Intel
Main users	HTC, Motorola, Samsung	Apple	Nokia, Samsung (waning)	Blackberry	HTC?	Nokia
Price	Free	N/A	Free	N/A	~$5 (est)	Free
Market Share – unit shipments (Q210)	~18%	~14%	~40%	~18%	5%*	N/A
Market share – Mobile web and app usage (May 2010)	~26%	~40%	~24%	~6%	~2%	N/A

Source: Edison Investment Research

What is the end-game?

It is notable that the strategies of the two dominant new entrants into the mobile phone market could not be further apart. Apple makes a very substantial margin from a relatively low volume share of shipments, while Google makes no direct revenues from Android shipments but will be targeting a powerful market share from which to leverage sales from advertising, applications and services.

Apple's value game may reach a ceiling

Apple is (for now) the (comparatively) low volume, high priced vendor. It is perhaps easy to forget that Apple will only ship about 50m units this year, in a 1.2bn unit market. Yet it will probably make about $12bn gross profit on those devices. Nokia, the most profitable mainstream vendor, had annualised gross profits in Q210 over $10bn despite selling almost 10 times more devices. Apple's wholesale ASP for the iPhone has been maintained at roughly $600 (including accessories) and based on tear-down analyses is likely making close to a 50% gross margin.

However, Apple's dogged insistence on maintaining an extremely narrow product portfolio with very high prices could prove a problem in due course. Apple's key challenge in the next phase of this market will be to balance market share growth while maintaining its exceptional price premium. The signs are (its market share is stagnating) that it cannot be done – something has got to give.

Google wants to leverage volume dominance

Google's strategy, meanwhile, is clearly all about volume. Having exited its early foray into device design (the Nexus One phone that Google developed in-house was shelved recently), Google now makes no direct revenue from the sale of each Android device.

This is clearly not an act of benevolence, and Google will seek to generate a return. The mechanics of how it will do this are unclear, but, as Google has shown with search, dominance of a platform spawns significant revenue opportunities. In the mobile sphere, monetisable opportunities in advertising, applications and content will all be targeted. However, other mobile industry players, most obviously the operators, are targeting these revenue streams also, meaning that Android's relatively benign reputation that has facilitated adoption up until now is likely to come under increasing scrutiny.

Exhibit 3: Main Android vendors

	Current	Announced
Acer	4	3
DELL	1	4
Garmin	1	
HTC	18	2
Huawei	4	
LG	8	
Motorola	22	
Samsung	12	3
Sony Ericsson	2	
Other	17	6
Total	**89**	**18**

Source: Wikipedia

Implications for the supply chain

Android's success has already had a significant impact on the supply chain. For a start, the decision to give away the Android platform for free forced the other licensed OS player Symbian to follow suit and adopt an open source model as of February 2010. Equally, it has significantly benefitted early handset adopters of the platform. HTC, the first OEM to launch an Android device, doubled handset volumes and market share year-on-year to Q210, moving it into the top 10 globally. Motorola's overall handset volume share has continued to decline, but Android-driven success in smart phones is making this business look a viable proposition once again. Equally Nokia and RIM have lost out.

On the component side, Android should be boosting overall mobile chip consumption at present. Some of the saving gained through the absence of an OS licensing fee is probably filtering down into mobile chip suppliers, particularly the applications processors. (ARM and Imagination would benefit here, although the latter's fortunes are more closely influenced by those of Apple.) Smartphone chip suppliers who were not enjoying the benefits of supplying to Apple (Wolfson for example) are witnessing improved financial performance. Due to the user friendliness of Android, data and applications, operators are experiencing increased data usage (see Exhibit 2), although many do not yet have the pricing model in place to enjoy the benefit.

Looking longer-term the impact is unlikely to be so beneficial. Google does not really care about the price or profitability of the underlying devices carrying the Android system; it just wants to get as many people are possible using the Google services – its ultimate profit centre. The emergence of a dominant OS supplier (combined with more homogenous device form factors) could yet shift the handset industry towards a more commoditised PC type structure. Consumer prioritisation of the operating system above the handset OEM dilutes the OEM's brand equity. We doubt it will ever replicate it, but like Windows opened the door for Dell, Acer etc to enter the PC market, these same players are using Android to make a play in smartphones. Operators may also find themselves threatened; despite the current support for the platform as a counterpoint to Apple, Google is likely to target revenue streams also being coveted by some of the operators.

So while Android is currently enjoying a near universal 'good guy' reputation in the handset industry, we question how long this will continue.