China Mobile Phone Design Industry Report, 2009-2010

Mobile phone design industry has undergone fundamental changes.

First, mobile phone design and production patterns have changed completely. The upstream and downstream of industry chain penetrate into each other. The traditional mobile phone design companies that focused on buying chip sets, designing circuit boards and adding cases have gradually quit. Instead, the upstream, midstream and downstream of industry chain are integrated vertically so that enterprises can master the difference of mobile phones more effectively.
Profit Comparison among All Sectors of Mobile Phone Design Industry Chain

Upstream
- Operating System
- Special IC

Midstream
- Software Design
- Industry Design

Downstream
- Manufacturing of Brand Phones
- Manufacturing of Cloned Phones

Source: ResearchInChina
It can be seen that the main impetus driving consumers to purchase mobile phones lies in the difference of models. Therefore, any link in the process of design and manufacturing that can enhance product differentiation will generate high profits.

The development trends of smart phones show that hardware differentiation plays a decreasing role in the value of mobile phones, while the differentiation in operating systems, applications and content services play an increasing one. Mobile phone manufacturers have shifted their focus from hardware differentiation to higher value-added links, such as operating system development or device and application software. That's why HP acquired Palm's Web OS. Major mobile phone manufacturers, even operators, have launched their own Application Stores (App Store) to compete for developers and service providers in order to obtain competitive advantages in content and services.

However, the increasing significance of software and content does not indicate the insignificance of other aspects. For example, the improvement of software functions of smart phones and the wireless transmission of massive content data cannot be realized without the support of chip makers and operators. For example, smart phones consume a lot of electricity, so the progress of battery technology is essential.

Second, mobile phone design industry has been greatly expanded, and more and more operators, designers, content providers and software vendors have been involved in the industry, willingly or unwillingly.

Therefore, mobile phone industry, particularly China mobile phone industry, has become quite complex. China is the world’s only country that constructs three 3G communication networks simultaneously. The attitude of terminal manufacturers and chip suppliers toward 3G standards directly affects mobile users’ selection of network standards.
Terminal manufacturers’ inclination and strategic orientation of operating system determines the functional diversification and product differentiation of mobile phones. Operators, hardware providers, software providers, mobile phone manufacturers compete to control terminals, which makes the already complicated mobile phone design industry become more sophisticated. The competitive pattern in China mobile phone design industry is sketched as below:
The expansion of industry chain has outdated the “plentiful models” tactic independently operated by manufacturers; the manufacturers with more upstream and downstream resources as well as an ecosystem which benefits upstream and downstream enterprises (particularly software and content providers) will have greater bargain power and more market shares.

This report sheds light on the relationship between the upstream and downstream of mobile phone industry, and delves into major hardware and software platform manufacturers in the mobile phone design industry, mobile phone manufacturers’ preference of operating systems, mobile phone case structure design companies, mobile phone industry alliances, and major mobile phone design companies in China.

The report also describes the design features and user attention of 11,626 mobile phones launched in China in 2007-2009. Design features include more than 50 parameters, namely, standard, type, call time (minute), standby time (hour), operating system, launch time, place of origin, memory, color of internal screen, materials of internal screen, screen size, color of external screen, photo sensor of digital camera, pixel of digital camera (in ten thousands), performance of digital camera, polyphonic ringtone, ringtone, version supported by WAP, web browsing, Bluetooth technology, voice-activated dialing, MP3 player, memory card, video format, recording, call firewall, input method, mail protocol, data & fax receiving, JAVA, Chinese input method, infrared interface, automatic switch, wireless protocol, alarm clock, built-in game, data line interface, phonebook, capacity of phonebook, phonebook grouping, SMS protocol, group sending of SMS, color, capacity of SMS, weight (g), length (mm), width (mm), height (mm), standard battery, accessories and so on.
Distribution of 11,626 mobile phones by Weight, 2007-2009

Source: ResearchInChina
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