INTRODUCTION

The year 2015 marks the 28th anniversary of Chinese mobile services. In the past twenty seven years, the Chinese mobile communication market has undergone tremendous growth. According to Statista, China overtook the United States in becoming the world’s largest global smartphone market (in terms of shipment) in 2012, with 208 million units shipped. This number accounted for 21 percent of the entire global smartphone market (Statista, 2013c).

In the past two years, the Chinese smartphone market has witnessed another remarkable growth both domestically and internationally. According to Statista (2013b), in 2014, the offline Chinese mobile phone sales were to reach 445 million units, 420 million of them being smartphones. The most recent report from Trendforce has confirmed the forecast, PCworld predicted that Chinese brands had shipped 453.4 million units in 2014 (Kan, 2015).

With the incomparably vast consumer base, China has drawn great attention from smartphone manufacturers worldwide. Companies such as Samsung, Apple, Motorola, HTC, and Nokia have been actively competing in the Chinese mobile phone market in the past years. Chinese domestic manufactures are also on the rise. Xiaomi, the domestic start-up, overtook the sales of Samsung Electronics Inc. at the Q2 of 2014, and tripled its last year sales to reach about 60 million global shipments in 2014 (T., 2014). Lenovo, Coolpad, Huawei, ZTE and Oppo are strong domestic competitors. In addition, Xiaomi and Coolpad have quickly gained market share in international competition with low prices.

By 2014, the smartphone penetration in Chinese mobile phone markets had exceeded forty percent (Statista, 2013a). eMarketer (2014) estimated that the Chinese smartphone users base would be the largest in the world by 2014, with 521.7 million users. According to Chinese Ministry of Industry and Information Technology’s official Q4 report in 2014, the Chinese mobile phone market ranked number one in size worldwide with more than 1.273 billion mobile phone subscribers.

With the wide adoption of smartphones in recent years, a great number of mobile applications have been presented to the Chinese mobile app market. With the additional functionalities enabled by the various mobile apps, however, significant threats have also confronted the smartphone users. Although the wide adoption of smartphones has also brought the prosperity of mobile-commerce (m-commerce), it increases concerns on mobile security. Meanwhile, with various apps competing to obtain individual consumer data, malicious hackers aiming to reap illegal financial gains, the threats to data privacy and security to both users and businesses prevail.

In this article, we focus on the Chinese smartphone market’s development process, its challenges and future prosperity. First, we introduce the Chinese mobile phone history and the current smartphone
market situation. Second, we describe the mobile app market in China, including the currently popular mobile apps, various categories of apps, and app revenues. Third, we identify challenges in the Chinese mobile app market and offer suggestions to the industry practitioners, users and government. Lastly, we conclude with thoughts on the opportunities for the future of the Chinese smartphone market.

CHINESE MOBILE PHONE MARKET LANDSCAPE

1. The Development of the Chinese Mobile Network

The first Chinese mobile phone service was introduced back in 1987, when the former China Mobile Communications Corporation (CMCC) began its operations on a 900MHz analog mobile phone service. The first generation analog mobile phones used the standards of AMPS, TACS, and NMT. At that time, the communication signals were unstable and eavesdropping was a serious problem.

The second-generation mobile phones used GSM and CDMA standards, most of which supported GPRS and WAP network services. It added the data transfer function to the simple call function.

The third generation of mobile phones combined the wireless communication functionality with the multimedia communication ability. Three standards are used in China: the United States' CDMA2000, European’s WCDMA, and Chinese unique TD-SCDMA. The third generation (3G) mobile phone has achieved significant improvement in the speed of data transmission and can efficiently process video, music, graphics, e-commerce applications and other multimedia functions.

In December 2013, China started to commercialize its fourth generation (4G) mobile network services after the Ministry of Industry and Information issued a 4G license to China Mobile, China Telecom and China Unicom. TD-LTE and FDD-LTE are the two new 4G standards, and in theory they can reach 100Mbps and 150Mbps downstream speed respectively. China Mobile forecasted that it would sign up around 250 million 4G subscribers in 2015, with plans to deploy over one million TD-LTE base stations to expand coverage (Economic Information Daily, 2014).

2. The Expansion of the Chinese Smartphone Market

With economic growth and population expansion, the Chinese mobile phone market has become the world’s largest, surpassing that of both India and the United States.

The historical market shares of smartphones in 2010 are shown in Figure 1. According to Ci800 Net (2011), by the Q3 of 2010, Nokia was leading with a market share of 54.7%, followed by Motorola (14.7%), Samsung (6.4%), Coolpad (6.4%), Dopod (6.1%) and Apple (5.3%).

In the past three years, Chinese smartphone market has transformed dramatically. The new phone shipment in the Chinese smartphone market in the Q2 of 2014 by Canalys showed that Xiaomi was leading the Q2 shipment with 14%, followed by Samsung, Lenovo and Yulong (Coolpad), each with 12%, and Huawei with 11%. The new phone sales have been evenly distributed among the top providers.

With the fierce competition in the Chinese mobile phone market, currently, only three international manufacturers managed to occupy a significant share in the new phone shipment, with Samsung and Apple had more than 10% share, and HTC had about 1% share (Richter, 2014).

In January 2015, exciting news arrived for Apple Inc. According to the most recent statistics from Canalys, Apple had shipped the most number of smartphones in China in the Q4 of 2014, overtaking Samsung and Chinese domestic companies for the first time. The boost up of the Q4 sales of iPhone
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