

Financial analysis for smartphone industry

[Business](#), [Industries](#)



After a heat discussion, our team chose the smart phone industry for the following two reasons. Firstly, telephone is a significant communicating instrument around the world today. International Telecommunication Union predicts that the number of cell phones would exceed the number of human beings in 2014. Secondly, with the increasingly functions of smart phone, it plays a vital role in the relevant industries. The flourishing development of smart phone industry also accelerates the development of other industries such as the cell phone battery industry and cell phone game industry. . 1

Industry Analysis We are talking about smart phone industry specifically. The newly formed competitive market includes hardware manufacturing, operating systems and content. Looking back on the history, leaders of those fields have changed a lot, as Nokia, Motorola and RIM have been transcended by Apple, Samsung and other brands. Apply Porter's five force analysis to smart phone industry. Starting from threat of entry, software faces this more because of open platforms. Floods of capitals are required for R and operation levels, thus this threat is moderately high.

Substitutes like Pads, Notebook and laptops have entered the market causing the threat. Threat also comes from suppliers, fragmented supply and the difficulty of vertical integration have impeded company profiting. But the threat is low overall. Meanwhile, buyers also impact threat by various demands and higher bargaining power. All these four threats result in a high threat of rivalry. Brand and concentrated market also matter. For the industry status, in 2011, the smart phone application market was about USED 6. 7 billion which is expected to be USED 1 55 billion with CARR of almost 55% from 2011 to 2017.

In addition, worldwide sales of smart phones to end users totaled 968 million units in 2013, an increase of 42. Percent from 2012. Sales of smart phones accounted for 53.6 percent of overall mobile phone sales in 2013 which accounts for 75.8% of the overall mobile handset revenue.

1.3 Firm description

We choose six companies in smart phone industry to do some analysis. They are Sony, Apple, Samsung, ETC, Black Berry and Monika. The firms we choose represent different level of performance in the industry. Apple and Samsung are outstanding firms with higher net income and greater profitability.

MONIKA, SONY and Blackberry are firms once created brilliant achievements but suffer from ailing business in the past 3 years. ETC is a newly brought-in competitor with advanced technology in developing smart phones. The six firms experienced different types of history. Samsung struggled with poor quality and inferior products in its earlier times. Apple seemed to grow gradually since it was established. On the contrary, Blackberry and MONIKA were once outstanding in the industry. SONY (SONY Ericson) left behind when transforming from mobile phones to smart phones.

ETC has a short history. Most of the firms experienced several important mergers or acquisition in the past 5 years. Badly-performed firms shrink while well-performed ones expand their equities by proper selling plans or acquisitions. Some important events are as follows. Microsoft declared to acquire Ionians mobile business and large amounts of patent portfolios with 7.17 billion dollars. Blackberry made an announcement that the corporation

agreed to be acquired by Fairfax Financial Holdings at the price of 47 billion, though the selling plan turns out to be failed.

SONY and Ericson were incorporated into Sony Mobile Communications. 2. Past performance analysis Note: Risk free rate: US. Government bond rate for 5 years Expected market return: historical industry return for 5 years 2. 1 Samsung 013 is a fancy year for Samsung, possessing the biggest market share in smart phone for 31. 5% ahead of 15. 5% for Apple. For the first sq in 2013, PEE ratio decreased from 9. 09% to 6. 99% and it rose to 7. 30% in SQ. For the capital structure, 93. 2% was financed by equity and bond took up 6. 7%. Stock return for 2013 is -3. 7%. Move to past areas. PIE ratio experienced biggest decrease from 1 1. 88% to 7. 04%. Stock return is waving from 2. 98% to 28. 53%. Now focus on past areas. PEE ratio as 1 1. 88% peaked in 2011 standing out from a general downward trend. Besides, the releasing of GALAXY Tab 3 and GALAXY Note 10. Drove inventory turnover ratio higher. The peak for debt to equity ratio appeared in 2011 which is 0. 1446 and the trend is downward. Stock return in 2009 is highest for 64. 42%. The cost of equity for Samsung is 27. 63% given its current beta is 1. 12.

For the dividend policy, the payout ratios are 12. 3%, 9. 3%, 6. 0%, 5. 1% and 7. 11% respectively since 2009. The most recent dividend pay date is on August 26, painting out 75. 4 million USED. On July 17 2012, Samsung acquired the handset operations of CARS PI, and invested a 4. 9% stake in the company later. It is the largest acquisition case for Samsung since the 1997 uncial crisis. Actually, Samsung completed 5 acquisitions in 2012 which

is more frequent than before. Acquisitions progress appears in net income rising from in 2011 to and to in 2012 and 2013.

Inventions also declined from 3, 859, 994 to 2, 918, 234 until 2013. Samsung sold a record 86 million smart phones in Quaff 2013 and widened its lead over Apple selling 51 million for phone 5. 2. 2 Monika In 2013, Monika had a negative PEPS, showing that Monika didn't do well in 2013. The inventory turnover was about 6. 0, lower than the industry average (about). ROE was negative. The debt/asset ratio was 72. 59%. The dividend per share was 0 in 2013. The stock return was 97% in 2013 and the cost of equity for Monika is 8. 66%, given its current beta is 1. 3. Looking at the past 3 years, we find Debt/Equity ratio of Monika was increasing constantly. The ROE ratio was always negative over the past three years, decreasing from 2011 to 2012 and increasing from 2012 to 2013. The dividend per share decreased from 0. 33 in 2011 to 0. 13 in 2012, then too in 2013. The stock return increased from -55% in 2011 to -23% in 2012, then to 97% in 2013. Considering the past five years performance, we find that Monika did quite a good job in 2009 and 010 because its PIE ratios were positive and really high.

The dividend per share decreased from 0. 41 in 2009 to 0. 31 in 2010. The trend of dividend per share from 2009 to 2013 is declining. The stock return increased from 2009 to 2013 while it was negative from 2009 to 2012. As for important events, on September 3rd, 2013, Microsoft declared to acquire Ionians mobile business and a large amount of patent portfolios with 7. 17 billion dollars. The stock price of Monika soared from about 3 dollars per

share to about 8 dollars per share from August 29th, 2013 to November 18th, 2013.

We compare the financial performance of the third quarter and fourth quarter of 2013 and find that net income increased a lot from -91 millions to -millions of dollars. 2. 3 Apple In 2013, Apple had a perfect performance. The ROE (about 0. 3064) and PIE ratio (about 15. 21) are both three times higher than the industry average, Besides, the inventory turnover of Apple is about 83, Apple is already well-known for its supply chain. The company's 40. 31% of assets came from debt and 59. 69% of assets came from equity. The of PAPAL in 2013 is 0. 74, and the cost of capital for PAPAL is 22. 3 percent in 2013.

In the past 3 years, the current ratio and price-earnings ratio did not change a lot, but ROE decrease sharply in 2013, and the debt/equity decreased in 2012 and increased in 2013, meaning that the company issued more stocks than bonds in 2012. The annual stock return 0. 013 in 2013, 0. Tent 2012, and 0. 243 in 2011. Looking back over 5 years, the ROE increased from 2009 to 2012 and decreased in 2013. The inventory turnover went up sharply from 2012 and went down a little in 2013, which is partially because of the phone ass's huge success. In addition, PAPAL began giving shareholders a quarterly dividend of \$2. Per share in 2012. This dividend yield is about 1. 2% higher than the industry average. Apple's businessphilosophyis to acquire small companies that can be easily integrated into existing company projects, so Apple did more than 60 small acquisitions in the last decades. Apple merged plenty of software makers including Sir. After the acquisition, Sir has been an

intelligent personal assistant and was introduced as a feature of the phone AS. This technical innovation has been a huge success so that more than 50% profit of Apple company came from phone in 2012. 2. ETC 013 is a struggling year for ETC, we can see that most of the key ratios of the company are under the industry average, profitability measures are almost all negative, and ROE are -1.67, indicating that ETC failed to earn enough profit to even cover its expense. The high Debt/equity ratio (1.22) makes its stock risky. The of ETC in 2013 is 1.88, while the industry average is only 1.12. High makes the cost to raise capital high too. The cost of capital for ETC is 10.13 percent in 2013. Looking back over 3 years, we found that Itch's profit has been declining since 2011, inventory turnover declined from 12.8 to 7.0 due to the poor sale and management problem. The annual stock return -0.525 in 2013, 0.064 2012, and -0.392 in 2011. Looking back over 5 years, it is clear that the business boomed during 2009 and 2011, and started to fall behind since then. The sale increased by about 11% from 2009 to 2010, but stock price has fallen by 90 percent since then. Besides, the company prescribed at least 50% of the total dividend be distributed as cash dividend, it pay dividend in July or August every year. ETC believe that acquisitions are the key to help ETC quickly grow to compete with its competitors.

So ETC spent more than \$700 lions on acquisition in 2010 and 2011 trying to gain market share. Major mergers include SO Graphics, Beats Electronics LLC, and etc. However, Itch's acquisition strategy didn't work well as expected. Those deals neither helped ETC to boost its brand image or to win the law suit, the sale have also been decreasing since the requested of 2011.

2. 5 Sony From 2009 to 2013, Sony had gone through a road of difficult and twists. In 2013, Sony didn't have a well performance. Its current ratio, ROE and inventory turnover ratio is under industry average.

To be specific, its inventory turnover ratio is the lowest. Through its PEE ratio is strangely high, I think it mostly related to the small profit number. Looking back over 3 years, we can see most ratio, including ROE and inventory turnover ratio, had a peak in 2012. Especially ROE had a soaring from 2011 to 2012. There are four reasons. First, Sony Corp. acquired the remaining 50% stake from ELM Ericson Telethon ABA on February 15, 2012, which made mobile phone sales increased a lot. Last, the yen devalued. Looking back over 5 years, the current ratio and ROE had a drop until 2011.

The inventory turnover ratio had a peak in 2010 while he debt-equity ratio increased until 2012. Actually, Sony had negative net income for consecutive four years. Not only it is a result of disasters such as JP Tsunami, but also it is because the yen appreciate and digital products from Japan were shocked by other goods. The stock return ratio of Sony from 2009 to 2011 has dropped from 0.5 to -0.47. However, it began to increase then. The ratio in 2013 is about 0.15. It is consistent with what ROE shows. The cost of equity is 52.72%. It is large due to the high Arm (29.64%) and high risk (beta-? 1.2). 2. 6 Blackberry 2013 is not a pleasant year for Blackberry. The ability to generate profit is far behind its peer competitors. PEPS and ROE of the firm are -1.23 and -6.61% due to the negative net income. However, the current ratio highly above the industry average (about 1.09). Stocks risk of Blackberry is low, measured in of 0.48. Based on p, the cost of capital is 3.70%. On

account of the bad performance over the year, annual stock return in 2013 is -0.426. Looking back to the past three-year performance, Blackberry dropped from its recent peak in 2011 to historical worst.

Blackberry experienced a terrible service interrupt in Oct, 2011, which severely damaged the firm reputation and directly caused the following bad performances. Business declined sharply in 2012, with falling ROE and P/E ratio. In retrospect the performance in last five years, we could see that even under unpleasant financial crisis, Blackberry still could hold itself. P/E ratio was 17.1 in 2009 and 10.0 in 2012, both showing a good prospect, however, the ratio then began to decrease sharply after 2010. Annual stock return was at first positive in 2009(0.19), but it has fallen below zero ever since. Inventory turnover is quite stable during the whole period. No dividend has been struttred during recent five years because of the disappointing performance. Most important series of restructuring events in Blackberry's history appeared in the year 2013. BlackBerry first announced to have reached a potential acquisition agreement with its biggest shareholder Fairfax Financial on Sep 23rd, after this good news, the stock price of BlackBerry shot up 0.6 dollars. But the potential acquisition plan didn't last for a long time.

In Novena, 2013 BlackBerry declared the breakdown of the selling plan. By pm Novo 4th, the stock price of BlackBerry has dropped 1.44 dollars (18.53%).

3. Future performance analysis . 1 Pro formal Pro formal of Cash Flow Pro formal of Balance Sheet & Income Statement Note: Erg (regression) W-M (weighted-moving-average method) Final (final forecast) We complete the

pro formal by three steps. First step is to do an autoregressive analysis to forecast the data of 2014 and 2015 through the historical data from 2009 to 2013. Then, we computed the weighted average by giving the weight of 0.5, 0.1, 0.15, 0.3, and 0.4. Finally, we find some forward looking data predicted by economic forecasters on the internet and use moving weighted average method to get final data which are more efficient. What is more, if there is no forward looking data, we use weighted average on the regressive result and average result. We combined two different methods to do the forecast. Because every method has its own drawback. For the regression method, it cannot show that the latest data, which indicates the trends more accurately, is more vital than the previous one.

And the weighted average can overcome this drawback by giving the latest data more weights. But for some items like income, we think the result of regression method is more accurately. So we combined these two methods by using weighted average.

3.2 Recommendation

We divided the analysis of future performance of PAPAL into two parts: The analysis of data and the analysis of reality. Firstly, Let us focus on the forecast data. We analyze three kinds of vital data measuring the performance of PAPAL. The first one is earnings per share (PEPS), which reflects the ability of company to generating profit.

We forecast this data by regression, which is to estimate the net income and shares and do a Multivariate regression. The result is around 45. Then, there are five websites give out the PEPS estimate around 47.9. We give them weights and get the final data of 47. . PEPS is the dollar value of earnings per

each outstanding share of a company's common stock. Higher PEPS means that the company can generate more net income by each share and it can use less capital to get higher profit. Besides, the dividend may be high because of the high PEPS. The forecast data 47. In 2015 is higher than today's data and it is reliable, because the net income and the shares are both increasing and the increasing speed of shares is slowly. So the performance of PAPAL will be better in the future. The second one is PIE ratio. We use the weighted average method to get PIE in 2015, which is 13.2, and we also use the regression method to get it, which is 13.44. We find that the forecast PIE ratio in Yahoo is 13.07, which is not a high one. Theoretically speaking, a stock with low PIE ratio is a good one to investment, because the purchase cost is low.

Besides, we think the value of PAPAL is underestimated now because of the high PEPS and the low PIE ratio. The price of stock will go up in the future. The third one is ROE, which shows how well PAPAL uses investment funds to earnings growth. We use the weighted average method to get ROE in 2015, which is 36.34%, and we also use the regression method to get it, which is 38.6%. The average number is 37.6%. ROE measures the rate of return on the shareholders' equity of the stock owners, which measures a firm's ability of generating profits from every unit of shareholders' equity.

Generally speaking, ROES more than 10% are considered good. Besides, the ROE of PAPAL is a reliable one, because the debt asset ratio is not high. In conclusion, we recommend that stockholders could hold Pal's stock for a long time because of the low PIE ratio and the high ROE. Performance we

forecasted originates from two reality parts, one is expected increase based on past and current situations and the other is unexpected hangs including systematic and unsystematic risks align with future. The anticipated two opportunities for Apple are analyzed as following.

The global market for smart phone will grow in few years based on GIG prediction and the annual sale is expected to increase from 1 billion in 2013 to 1 . Billion in 2017. Until the end of 2013, the SIS system accounted for 41. 2% and Android is 51. 9% comparatively. This intense rising user trend will amplify the market pie. The other is the cooperation with China Mobile. Above million regular customers of China Mobile will assist the sales rise for Apple. Unexpected systematic risk consists of interest rate risk and foreign currency risk. The company typically invests in highly-rated securities and changes in U.

S. Interest rates affect the interest earned on the company's cash, cash equivalents and marketable securities, the fair value of those securities, as well as costs associated with hedging. In the third quarter of 2013, the company issued \$17. 0 billion of long-term debt, which included \$3. 0 billion of floating-rate notes. In addition, Apple is a net receiver of foreign currencies and changes in exchange rates, particularly strengthening of U. S. Lars will negatively affect its net sales and gross margins expressed as U. S. Dollars originally. Unsystematic risk involves Apple's internal specific performance.

New products release like will be a main source. The attraction of next generation Apple phone is controversial and based on past dissatisfying

sales of phone and pad, their growth rate nearly held constant. Some people concern its innovation without Jobs but some analysts note that the bigger size for phones will eliminate advantage of Android system brands like Samsung. Charm of wearing new product which is twitch concretely is also worth anticipating ND we may get some indicts from the coming WAD held in Los Angels. Beyond this, Apple will increase repurchase of stocks and issuance of dividends.

According to Sanford C. Bernstein prediction, Apple will issue BIB dollars dividends in 2015. This will increase the value of stocks held on shareholders if the PEE ratio increased after the issuance. 4. Relative Performance

According to the comparison of 5 key ratios, the underperforming corporations are SONY, Blackberry, ETC and MONIKA. Most of the firm shared common problems in several aspects as lack of innovative products and inventory management, while mom have critical faults in designing strategies. Relative performance and recommendations are as follows.

According to the lowest inventory turnover ratio of Sony among its industry peers, one recommendation for Sony is to turn over its inventory quickly. It can improve its supply chain, manage efficiently to product appropriately. Due to the fast update of digital products, long inventory turnover period will enlarge the risk and the cost. Besides, 3. 1% of the market share is so small compared with Samsung and Apple that its ROE can't increase smoothly. The key to increase its market share is to launch the new production. Only by creating great mobile phones like phone, can Sony rebuild its Sony Time.

Similar problems appeared in Blackberry and Monika. Most of Blackberry's profitability ratios as PEE, ROE and PEPS are under industry average due to firm's negative net income. The reasons are lack of attractive application programs and disappointing new product. Apple's phone and Google's Android squeezed the market share of Blackberry smart phone. The newly launched table PC was also not satisfying with simple functions but high selling price. Blackberry should not only depend on its good reputation in E-mail receiving system, but focus more on user's entertainment experience like fancy interface and programs.

Besides, Blackberry is the only one who ignores the prospect in China. To recover from declining tendency, a competitive product is required to open its Chinese market. The negative ROE and low inventory turnover ratio indicates that MONIKA is losing money. The reason is that the product of Monika is not as popular as that of other leading companies like Apple and considered to be lack of innovation, and its Simian operating system (until 2013) is not advocated by developers. So Monika should increase funding for research and develop products that appeal the consumers.

Given that the mobile phone business of Monika was acquired by Microsoft on April 5th, 2014 (the acquisition was started on September 3rd, 2013), Microsoft should learn a lesson from the failure of Monika. ETC has been struggling in China due to price competition and limited distribution. Many people think the wrong high-end market strategy got ETC into trouble. To get out of woods, ETC may need to forget its strategy on high-end market and

consider a partnership (merger) with another smart phone company that could provide synergy.

Chinese smart phone makers sell products domestically because they have weak brand awareness in other regions, but ETC has established solid brand awareness in the United States and Europe, which Chinese handset makers could capitalize on. And ETC could get resources to get through this situation and look for new chances for development. So a merger with Chinese firms could be a win-win. 5. Conclusion From the perspective of companies in the smart phone industry: Considering the fast speed of development of Asia-Pacific market, each company should strive to evolve Asia-Pacific market.

Moreover, the target market of the company must be effective. As for products, companies should develop the products that satisfy consumers' preference. From the perspective of investors: The smart phone industry has a great development potential, so investors have substantial investment opportunities in this industry. But investors should cautiously determine the invested companies. We recommend selecting invested companies according to their past and future financial performance, the fitness between their products and the preference of the market, the market strategies and so on.