

# SMARTPHONE INDUSTRY ANALYSIS



**K.AGRAWAL&CO**

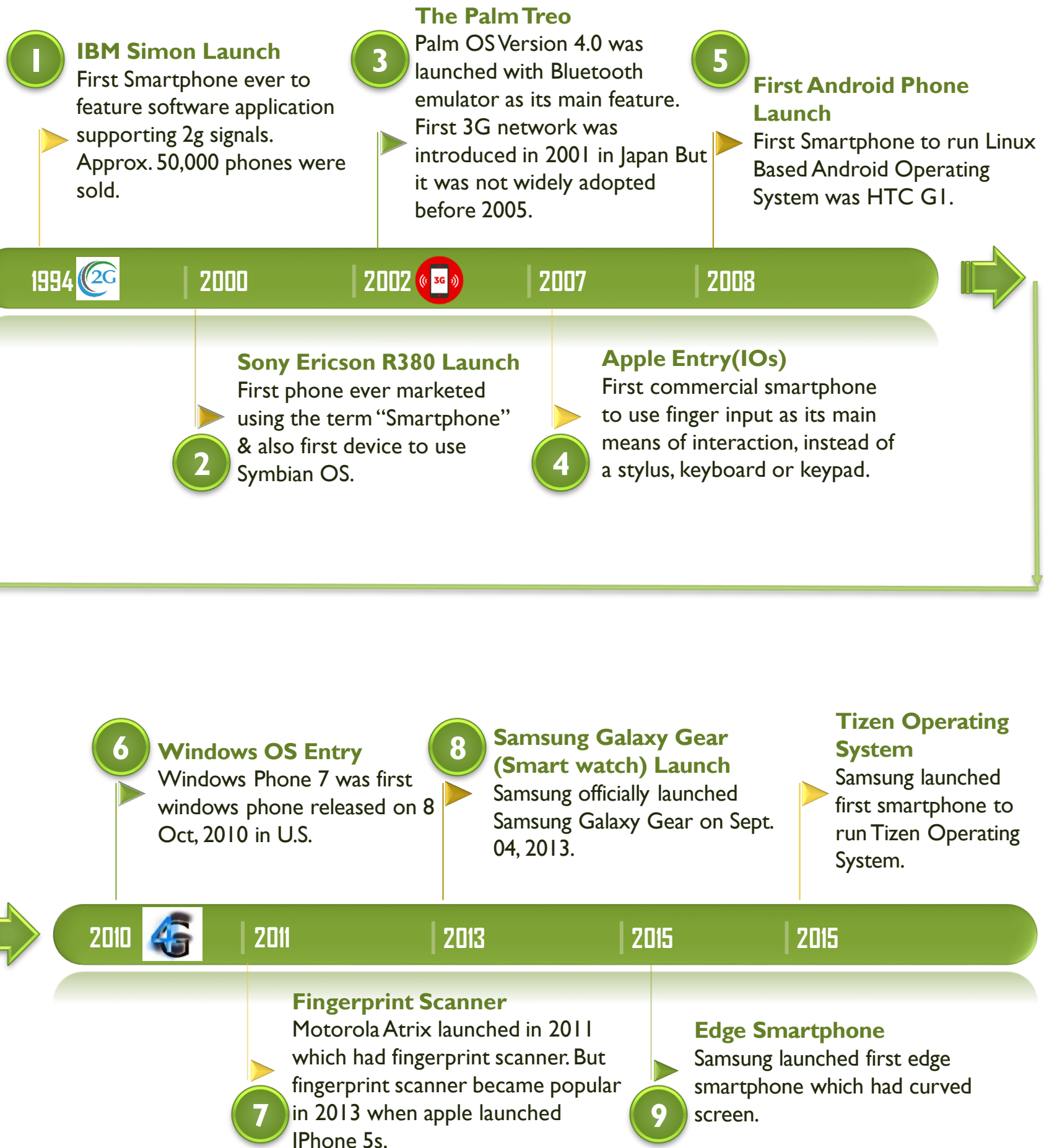
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# SMARTPHONE INDUSTRY ANALYSIS:

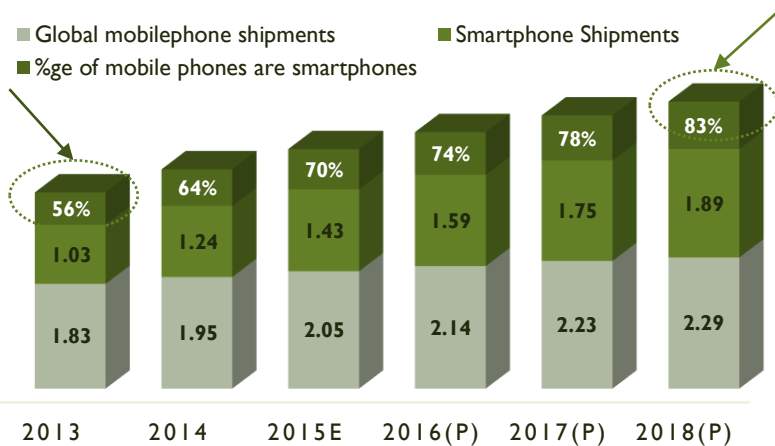
## 22 Years of Smartphones:



# SMARTPHONE INDUSTRY ANALYSIS:

## Global Mobile & Smartphones Supply

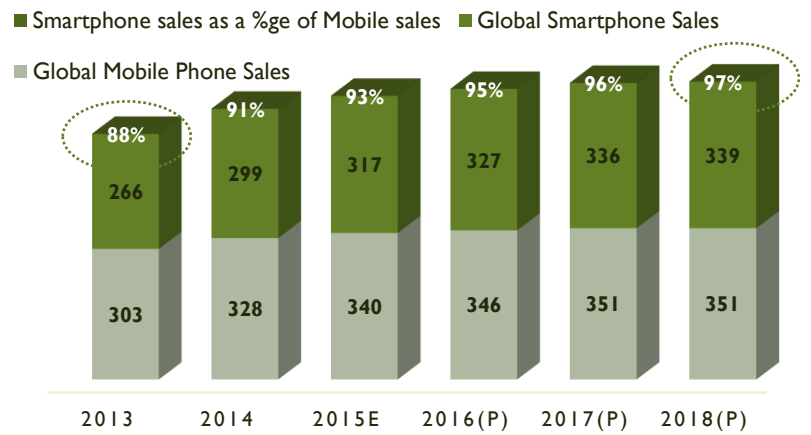
(By Volume in Billion)...



- Global Mobile Phone(smartphone & feature phones) supply is expected to grow at CAGR 3% from 2015 to 2018.
- Global Smartphone supply is expected to grow at CAGR 7% from 2015 to 2018.

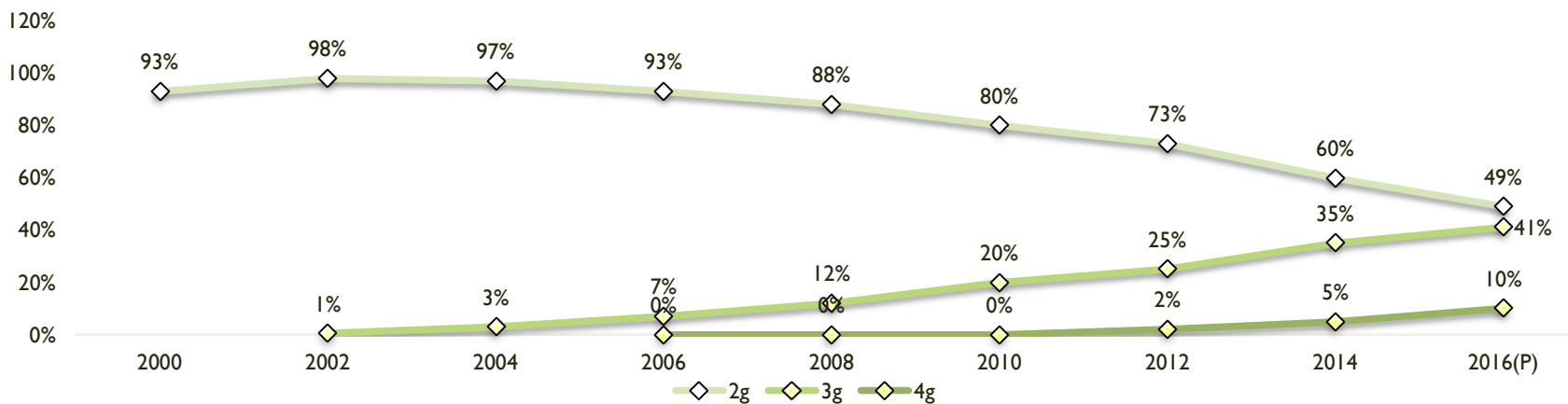
## Global Mobile & Smartphones Sales

(By Value in \$ Billion)...

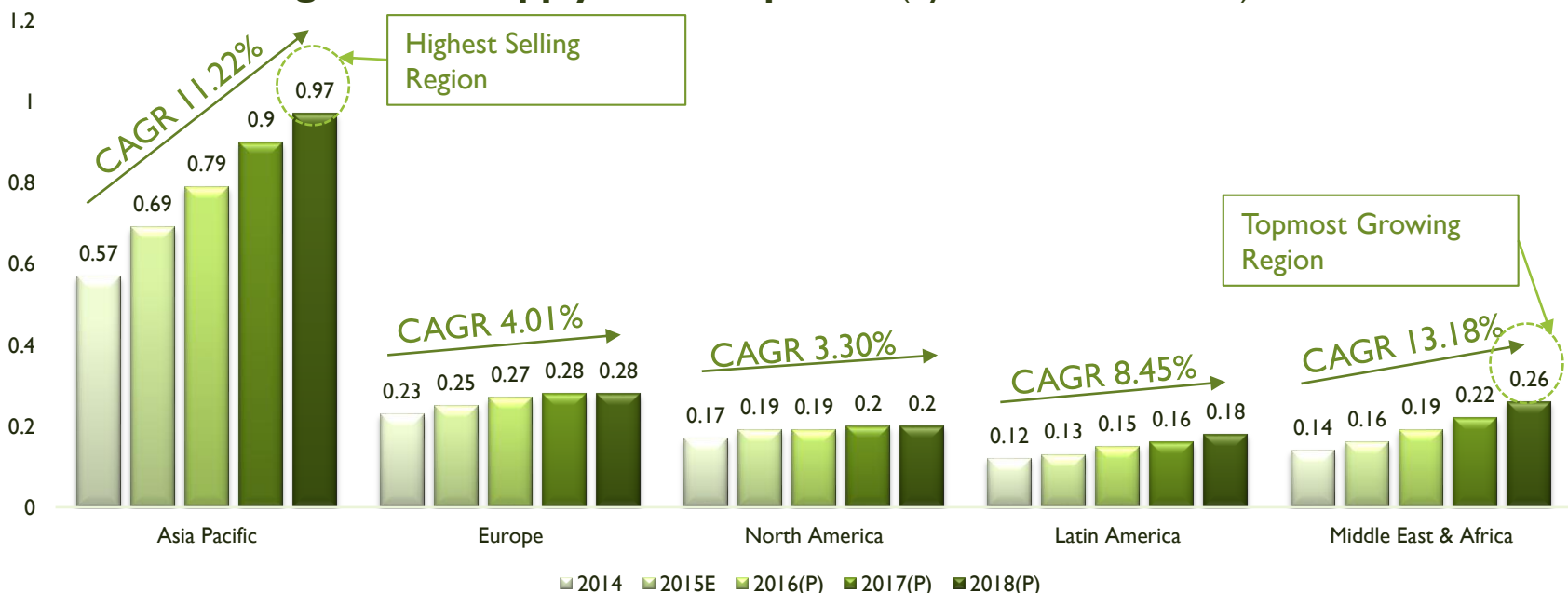


- Global Mobile Phone(smartphone & feature phones) & smartphone sales are expected to grow at CAGR 0.8% & 1.7% respectively from 2015 to 2018.
- Smartphones will account for 97% of total mobile phone sales by value in 2018.

## Evolution of Signal Technologies...

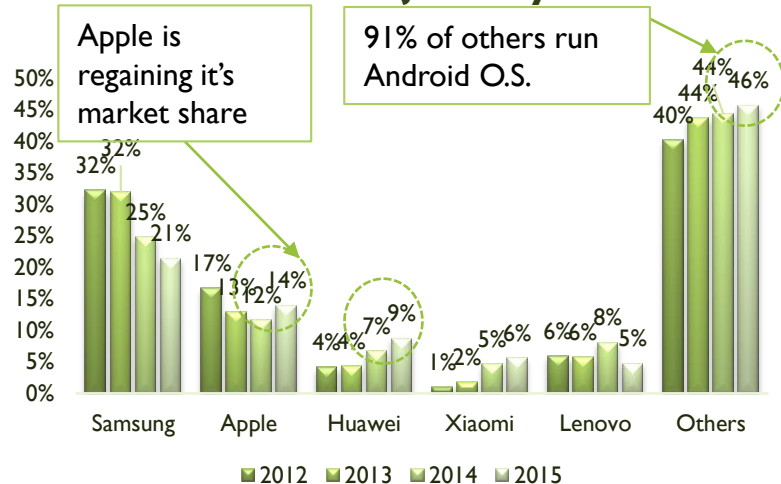


## Region wise supply of smartphones (by volume in Billions)...

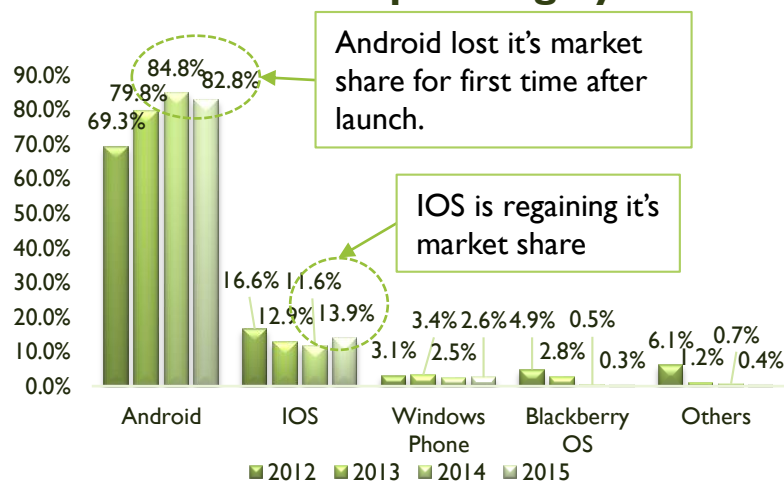


# SMARTPHONE INDUSTRY ANALYSIS:

## Market Share of Major Players

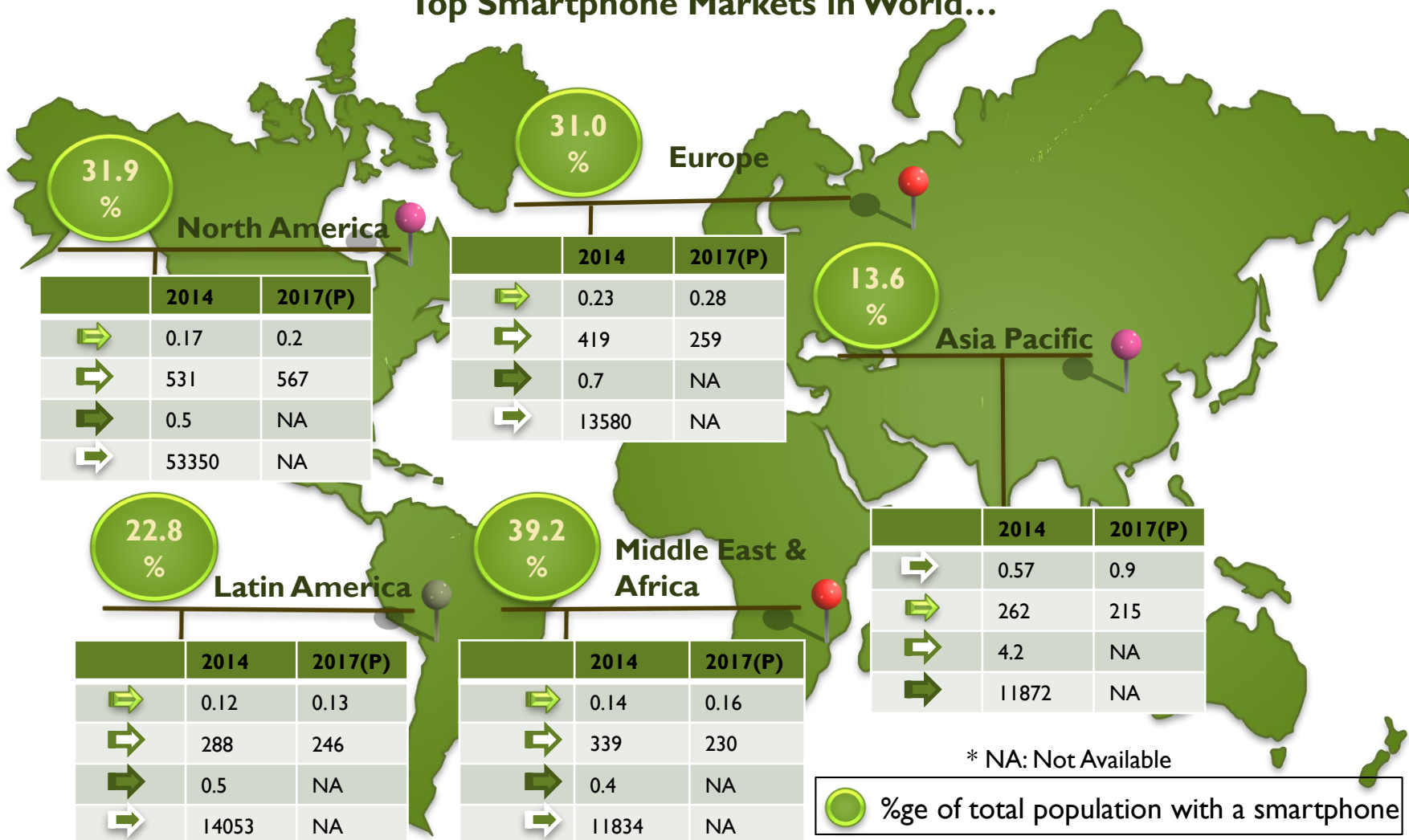


## Market Share of Operating System



- Samsung is losing its market share to Chinese manufacturing companies like Xiaomi, Huawei, Lenovo which are selling Android Smartphones at relatively cheaper prices.

## Top Smartphone Markets in World...



⇒ Total Shipments(in billions)   ⇒ Average Price(in \$)   ⇒ Population(In billion)   ⇒ GNI Per Capita(as per PPP model in \$)

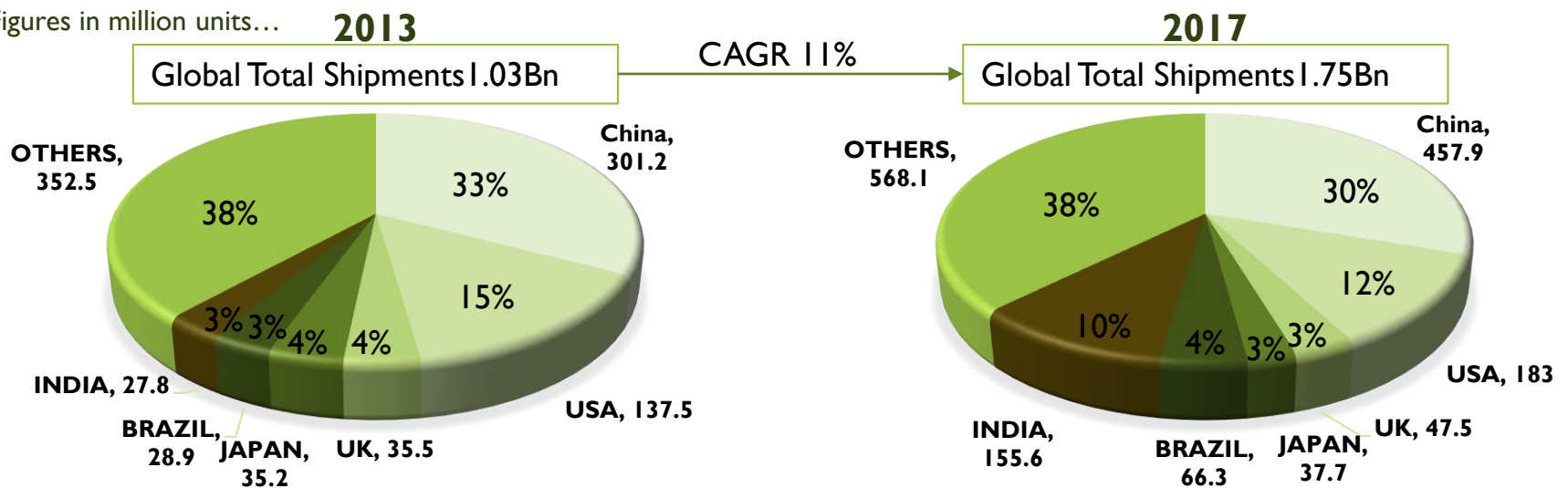
### Key Findings:

- Asia Pacific is the largest market for smartphones. In spite of being the largest market only 13.6 % of the total population own a smartphone in this region. The average price of smartphones is also lowest in this region so, low cost smartphone vendors like Xiaomi, Huawei, Lenovo take a greater market share.
- 39.2% of total population of the Middle East & Africa own a smartphone and is expected to show highest CAGR of 13.38%. Likes of Samsung, Motorola, Sony and other low to average cost smartphone vendors occupy a higher market share.
- GNI per capita is highest in North America. So, it is good market for high cost smartphone vendors like Apple.

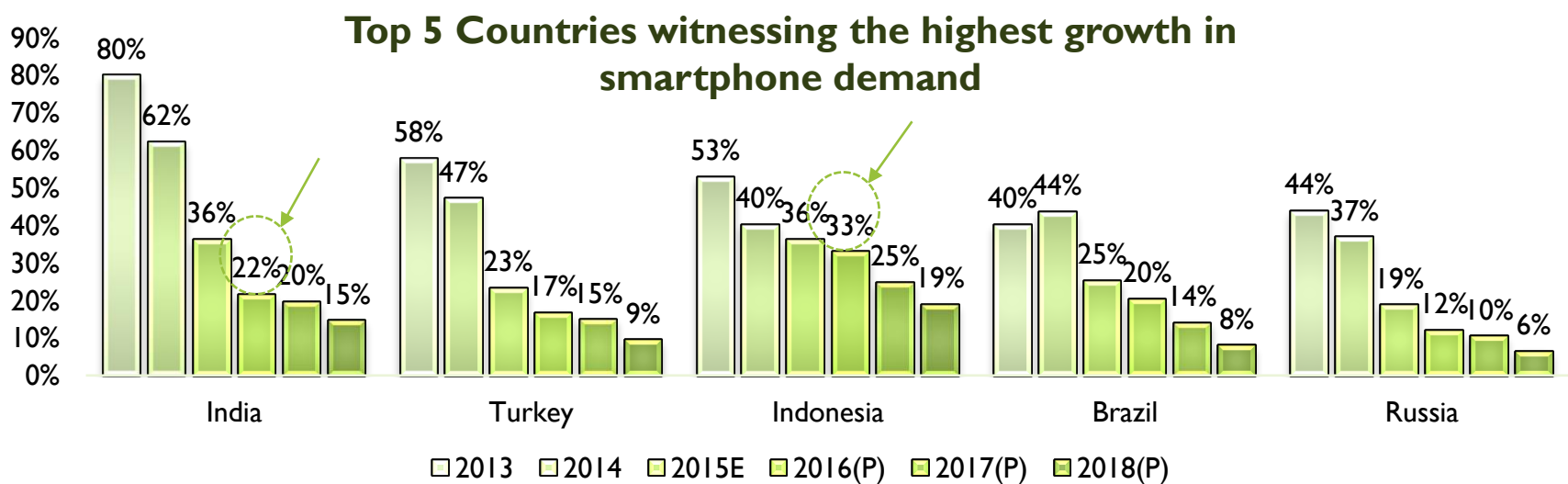
# SMARTPHONE INDUSTRY ANALYSIS:

## Top 6 Countries by Market Share

Figures in million units...



- Supply of Smartphones to Indian Market is expected to grow at the highest in the world (41% CAGR). India is expected to overtake the U.S. market by 2018 in number of smartphone shipments.
- Developing economies will witness higher growth rate in smartphone supply due to increased shipments of cheaper smartphones.
- Shipments of smartphones to China is currently the highest in the world and its share is expected to decrease going forward.



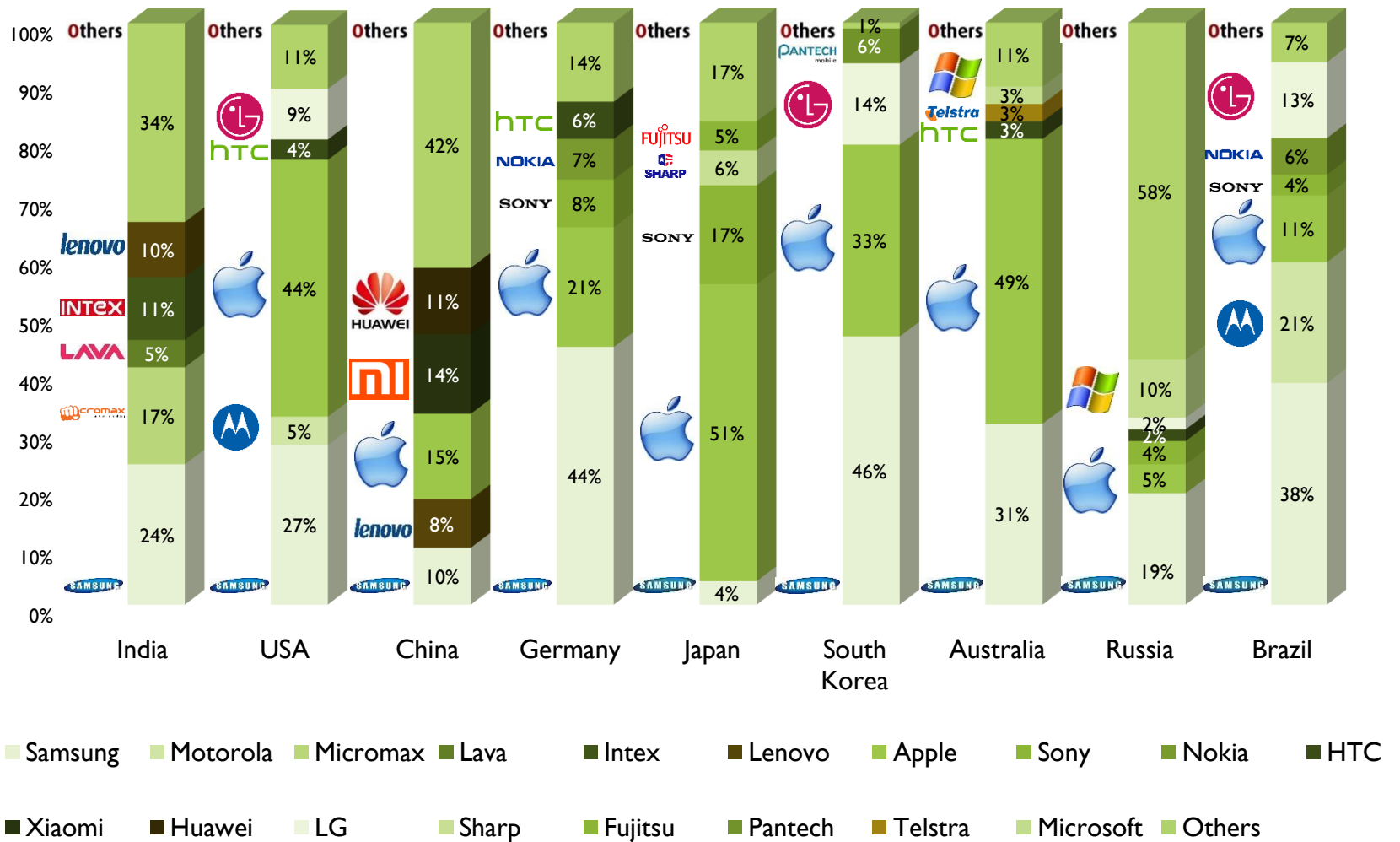
- Highest growth in smartphone demand is seen in the Indian Market over the past three years.
- Indonesia & Brazil are other high growing smartphone markets.

## News that became headlines

- Apple surpassed Samsung in sales by volume for the first time in Q4, 2014. Apple sales grew to 74.8 million in Q4, 2014 from 50.2 million in same quarter of last year. Apple's & Samsung market share in this quarter were 20.4% & 19.9% respectively.
- Lenovo acquired Motorola in Oct, 2014 and it showed 47.6% growth after this acquisition. Lenovo accounted for 6.6% market share in Q4, 2014.
- Xiaomi showed largest jump to triple its sales compared to a year ago. Xiaomi sold 61.1 million smartphones in 2014 up from 18.7 million in 2013. In terms of revenues, Xiaomi showed 135% hike.
- In Q1 2015, Apple & Samsung accounted for 107% of global operating profit as other vendor's operating profit was negative. Apple & Samsung took 92% & 15% share of global operating profit respectively.

# SMARTPHONE INDUSTRY ANALYSIS:

## Market Share of Smartphone Vendors in different countries...



- Samsung & Apple are the most popular selling smartphone vendors in the world.
- Huawei & Xiaomi are world's 3<sup>rd</sup> & 4<sup>th</sup> largest smartphone manufacturers, respectively. But, Huawei & Xiaomi do not hold major market share in any country except China.
- In every country, domestic Smartphone Manufacturers are competing with Samsung, like in India, we have Micromax Intex & lava, In Australia there is Telstra, In Japan there is Fujitsu & Pantech in South Korea.

## Smartphone Vendors & their Location...

| Company Name | Country     | Company Name | Country     | Company Name | Country     |
|--------------|-------------|--------------|-------------|--------------|-------------|
| Samsung      | South Korea | Micromax     | India       | Sharp        | Japan       |
| Apple        | USA         | Lava         | India       | Fujitsu      | Japan       |
| Xiaomi       | China       | Intex        | India       | Telstra      | Australia   |
| Huawei       | China       | Sony         | Japan       | Pantech      | South Korea |
| Lenovo       | China       | HTC          | Taiwan      | Motorola     | China       |
| Microsoft    | USA         | LG           | South Korea |              |             |

# SMARTPHONE INDUSTRY ANALYSIS:

## Case Study

### Google - Motorola

- ❑ Google acquired Motorola Mobility for \$12.5 billion in 2012. Google acquired MMI for \$40.0 per share in cash.
- ❑ Motorola Mobility revenues for FY 2011 were \$8,203 million. Sales multiple for the deal was 1.52.
- ❑ Google's strategic rationale for the acquisition was Motorola's rich Patent Portfolio. Google paid \$4 Billion out of \$12.5 billions for MMI's rich patent portfolio.
- ❑ Google received 24,500 patents from MMI. Out of which 17,000 were issued patents and 7,500 were applications.
- ❑ Motorola sales grew 3% in first quarter after this acquisition.
- ❑ Google sold Motorola Mobility to Chinese Manufacturer Lenovo for \$3 billion in 2014 and retained its patent portfolio.

### Lenovo-Motorola

- ❑ Lenovo bought Motorola Mobility from Google for \$3 billion in Oct, 2014.
- ❑ Lenovo paid Google \$660 million in cash & new issued shares of Lenovo stock of worth \$750 million. Remaining \$1.5 billion will be paid to Google by Lenovo in the form of a 3 year promissory note.
- ❑ Google still owns MMI's Patent Portfolio, Motorola received a license to this patent portfolio and other intellectual property.
- ❑ Lenovo's strategic rationale behind this acquisition was that Lenovo wanted to capture smartphone market share to be the world's 3<sup>rd</sup> largest smartphone manufacturer in 2014.
- ❑ Motorola under Lenovo recorded a 118% growth in Q4, 2014.

### Microsoft - Nokia

- ❑ Microsoft acquired Nokia's Mobile Phones and Smart Devices business units including Nokia's design team and its operations on 21<sup>st</sup> April, 2014 for \$7.2 billion in cash.
- ❑ The direct control will mean better integration of handsets with windows. Apple is the best example of this approach to the mobile phone industry. This approach made Microsoft to buy Nokia.
- ❑ The acquisition of Nokia boosted the company's revenues 25% to \$23.2 bn in 3 months after acquisition. However, company's quarterly profit declined 13% to \$4.5 billion due to integrations & restructuring expenses of about \$1.1 billion.
- ❑ 8500 design patents were also acquired by Microsoft.

## Profitability & Valuation of Smartphone Manufacturing Companies...

- ❑ Advertisement & material costs are major part of operating expenses in smartphone industry. Apple has the benefit of pricing and lower spends on advertisements as a percentage of revenues, that's why Apple accounts for major part of global operating profit from smartphone business.
- ❑ Mostly companies other than Apple & Samsung primarily carry negative operating profit margin. Operating profit margin shown in TTM is for company's whole business.

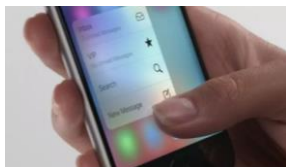
| Figures in USD billion            | Revenues | Gross Profit | EBIT | PAT  | Market Cap | Debt | Cash | EV    | Sales x     | EBIT x      | P/E ratio |
|-----------------------------------|----------|--------------|------|------|------------|------|------|-------|-------------|-------------|-----------|
| Apple                             | 2,33.7   | 93.6         | 72.5 | 53.4 | 605.5      | 53.5 | 21.1 | 637.9 | 2.7         | 8.8         | 11        |
| Samsung                           | 190.4    | 74.0         | 25.5 | 20.3 | 134.2      | 21.1 | 21.0 | 134.2 | 0.7         | 5.3         | 7         |
| Lenovo                            | 48.3     | 7.1          | -412 | -268 | 11.7       | 8.3  | 4.9  | 15.1  | 0.3         | -36.6       |           |
| Nokia                             | 13.8     | 5.9          | 1.5  | 1.1  | 26.3       | 2.6  | 4.1  | 24.8  | 1.8         | 17.0        | 24        |
| HTC                               | 4.4      | .856         | -348 | -356 | 60.5       | .809 | 1.3  | 59.9  | 13.7        | -172.4      |           |
| Sony                              | 58.7     | 14.5         | 2.3  | 1.5  | 31.1       | 9.9  | 8.4  | 32.5  | 0.6         | 14.4        | 21        |
| LG(*July 2014 - June 2015)        | 25.6     | 4.9          | -472 | -274 | 8.7        | 6.3  | .895 | 14.1  | 0.5         | -29.8       |           |
| Huawei(*FY 2014)                  | 44.5     | 19.7         | 5.1  | 4.3  | 8.9        | 4.4  | 12.0 | 1.2   | 0.0         | 0.2         | 2         |
| <b>Mean(Excluding Outliers)</b>   |          |              |      |      |            |      |      |       | <b>1.1</b>  | <b>11.3</b> | <b>13</b> |
| <b>Median(Excluding Outliers)</b> |          |              |      |      |            |      |      |       | <b>90.6</b> | <b>11.6</b> | <b>16</b> |

#### Notes:

- The comparable company's data is taken for the whole business of the companies.
- The comparable companies data is based on Trailing Twelve Month(TTM) for the period Oct 2014 to Sept 2015..
- Market-cap is calculated as the product of closing share price from bloomberg dated 27<sup>th</sup> Dec 2015 and number of share outstanding.
- Debt includes short term borrowing & long term borrowings.

# SMARTPHONE INDUSTRY ANALYSIS:

## How Smartphones have drastically changed in just a year...



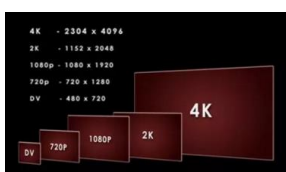
### 3D Touch:

The 3D touch technology allowed users to assign various shortcuts on their iPhones just by applying different amount of pressure on touchscreen.



### Optical Image Stabilization:

Implementation of OIS not only results in blur-free images, it also results in better low-light photography.



### Very High Resolution Display

LG G3 was the first phone to be launched sporting a quad-HD or a 2K display back in 2014. But the year 2015 was the year of phones with high-resolution display.



### USB Type C

USB Type-C is the first USB standard to come with reversible interface. USB Type- C can support speed up to 10 Gbps and has much higher power up to 20V(100W) and 5A.

## Future of Smartphones...

### Key Features to Expect in Future Smartphones:



### Augmented Reality:

Using “augmented reality” feature, user can get information without giving input by typing or voice command. User can get information using his smartphone’s camera. User just need to point the camera on anything and can get information about it.



### Flexible Screens:

Many smartphone users like to watch favourite movies & play games which they don't fully enjoy because of small screen size. Large screen smartphones are not pocketable. So, there is scope for foldable paper thin screen smartphones.



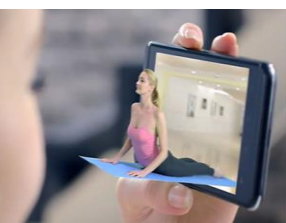
### In-Built Projector:

Users may not like large screen size smartphones. Smartphones may come up with in built projector. A WVGA projector is able to project up to 50 inches in size. With this feature future smartphones can actually be turned into an interactive gaming consoles without a need of TV screen.



### Seamless Voice Control:

Voice control has been receiving much attention since Siri made headlines. But instead of recognizing commands via sound waves, Siri interprets diction & syntax in a similar fashion to how we recognize speech. Such Natural Language User Interfaces prove to be more effective & accurate. Seamless Voice Control is a goal to achieve for smartphone vendors.



### 3D Screen & Holograms:

Smartphones may have already reached the peak of their screen resolution which actually provides a resolution that is sharper than what the human eye can perceive. Still users want more. So, mobile companies are now moving from 2D to 3D screens for future smartphones.



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