



# Tablet Ecosystem in India – Current State, Potential and Outlook

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## Preface

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As a concept, tablets have been around for a while. So have touch screens on phones. It did take quite a while for a true convergence of hardware, software, operating systems, usability and an application ecosystem to finally come together (read as iPad) which has paved the way for a new generation of devices in the form of today's tablets!

As this nascent market grows at a breakneck pace globally, economies of scale have started setting in already. While a number of models are available in India from global brands and not so global ones there has been very little by way of differentiation amidst all these products. While tablet adoption has largely been with consumers, uses for this device in certain verticals such as education, retail, healthcare, corporates & aviation industries prove there is a large potential for those verticals.

***Why do a report on the Tablet Market for India?*** Tablets have the potential to grow exponentially if key players in the Indian market can play to the right market forces. However, India is a complex market made more challenging with a lack of structured, actionable data (the insights and analysis needed for business leaders). Hence this report.

***What to expect from this report?*** This report will not only look at global trends, applications and use cases for tablets but also the current state of Indian market, challenges and the outlook for the Indian tablet market. This report will highlight the potential and opportunity in India which should serve as a strategic tool for category players.

The authors have reached out and interviewed business heads, product, marketing and sales managers, distributors and retailers of leading global and local tablet OEMs and also some neutral parties such as technology journalists, bloggers and reviewers. The authors wish to thank all the individuals who provided input for this report.

***Who is Convergence Catalyst & how are they qualified?*** Convergence Catalyst is a young and nimble Telecom Research and Advisory firm focusing on the Indian market. Convergence Catalyst (CC) principals bring decades of relevant Telecom experience in the Indian Telecom Industry. Having been Technocrats, Product Marketeers, Analysts and Business Consultants, they bring a keen insights into the Indian market dynamics. These insights will reflect on this report to help industry players base their strategic, operational decisions on the emerging Tablet Market.

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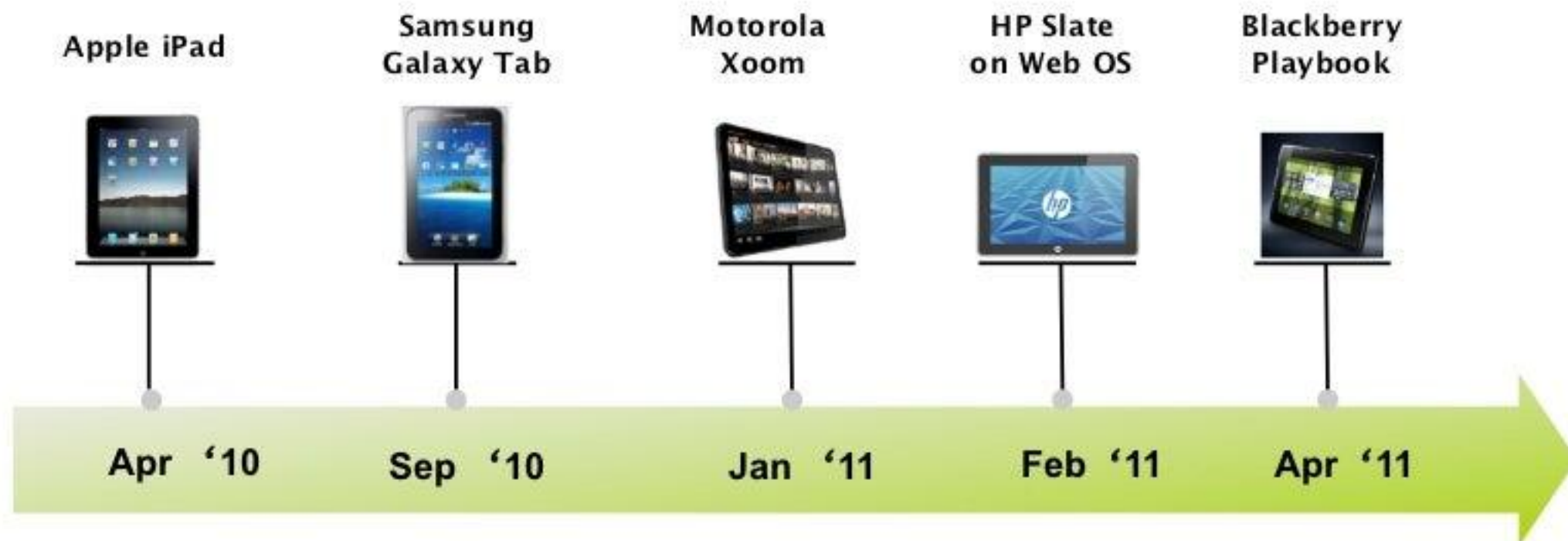
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**Tablets have become popular consumer devices with the launch of Apple iPad in Q1 2010, followed by a number of models by other OEMs<sup>1</sup>**

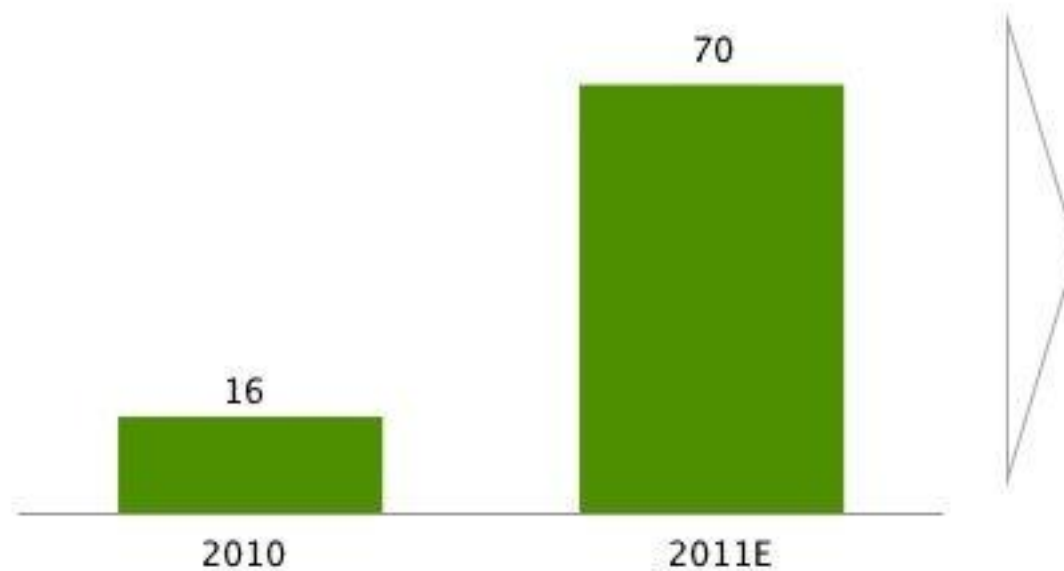
### Timelines of Key Tablets Launched Globally



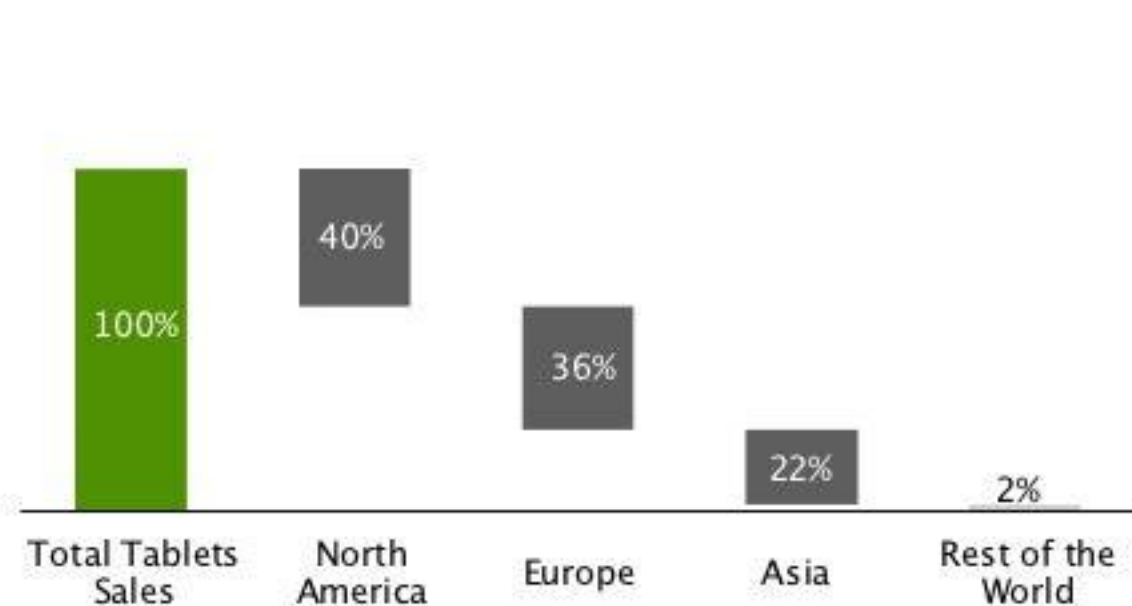
- Although tablets as portable, basic connectivity and computing devices have existed for many years, launch of Apple iPad heralded a new device segment
- iPad launch was followed by a number of tablet launches such as Samsung Galaxy Tab and Motorola Xoom on Android, HP's slate on WebOS and Blackberry's Playbook on the QNX platform
- Although HP has recently announced the cancellation of Slate and WebOS development, the company is rethinking its strategy

## Tablet sales are expected to grow over four times in 2011, with majority of sales coming from North America and Europe regions

Total Global Tablets Sales by Year (in Mn)



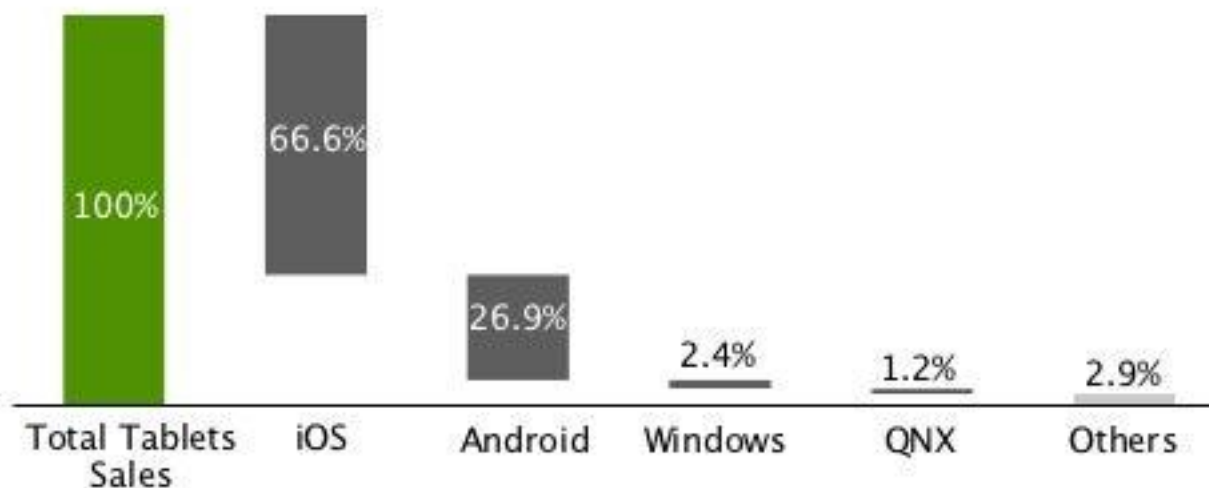
Worldwide Tablets Sales split by region (2011)



- Globally, over 16 million have been sold in 2010, and the number is expected to grow approximately by 350% to 70 million by the end of 2011
- Currently, tablets are being sold in developed markets on North America and Europe, while Asia (especially, China) is soon catching up
- With global (adult) internet penetration expected to reach over 21% by 2014, tablets will help drive the internet adoption among the unconnected, especially in the emerging markets

## Apple's iOS leads the market with two-thirds share followed by Android

**Tablets Operating Systems Market Share  
(Q3, 2011)**

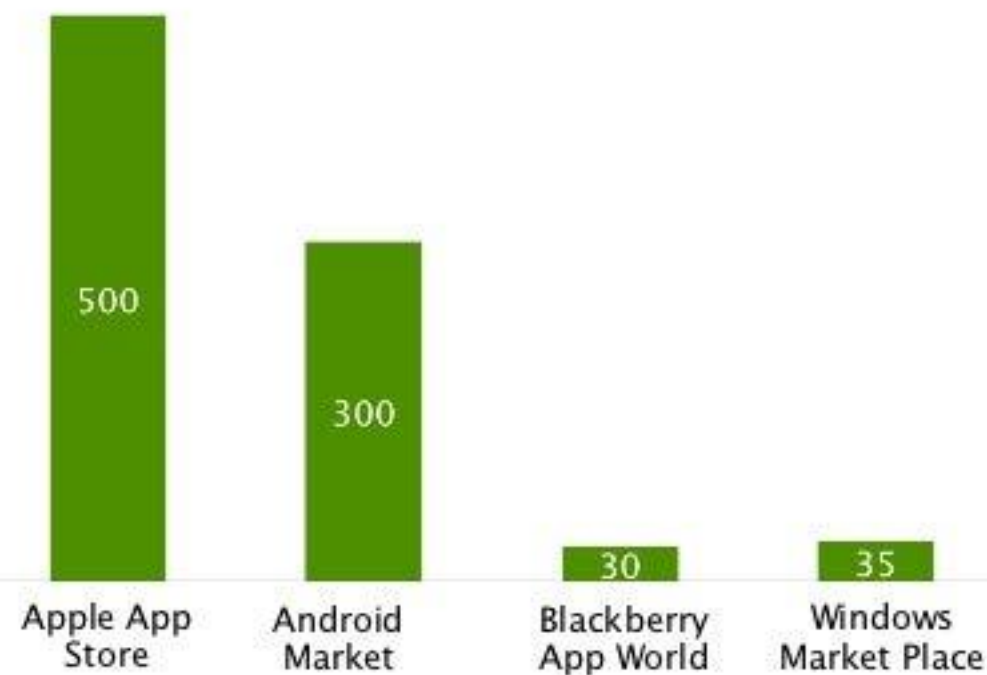


- Apple iOS leads the tablets operating system market with two-thirds share
- Android's share has increased from 2.3% in Q3, 2010 to close to 27% in Q3, 2011
- Android is the platform of choice by many OEMs (outside of Apple)
- As the tablet adoption increases in emerging markets, the share of Android is also expected to increase in the next few quarters
- Among all the Android-based tablet OEMs, Samsung leads the market with approximately three million shipments in Q3, 2011

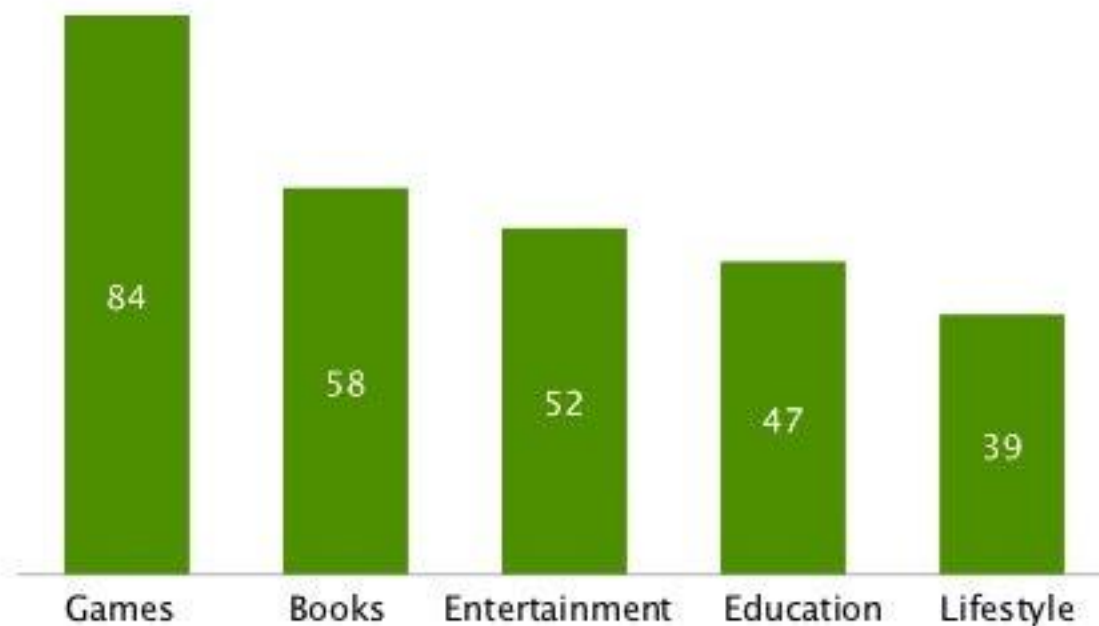


## The apps (available on each platform's app store) play a key role in the tablets ecosystem

Number of Active Applications by Operating System App Store<sup>1</sup> ('000, Sep 2011)



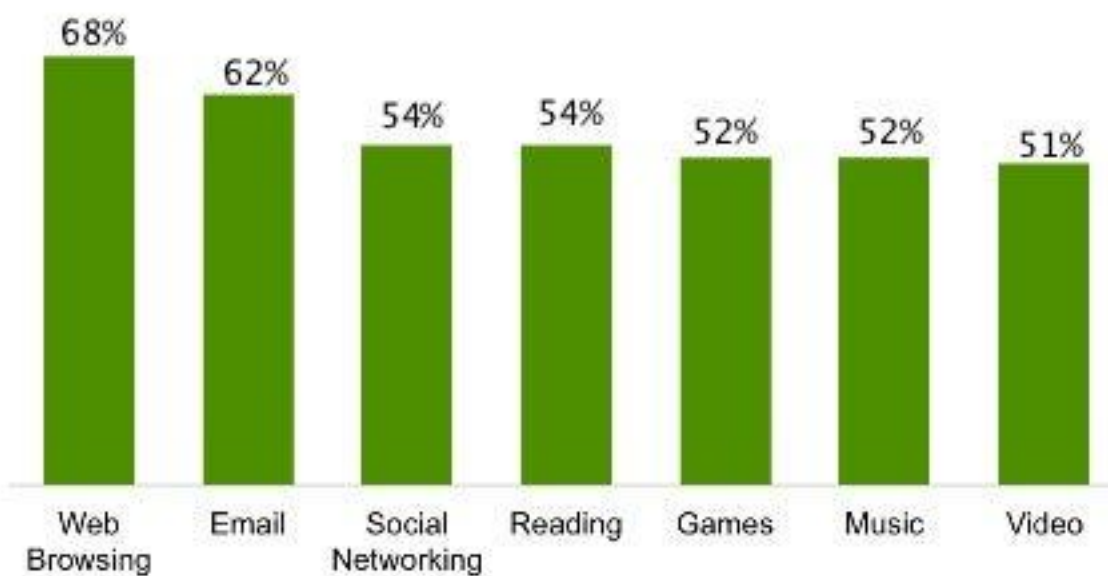
Top Categories of Apple App Store Apps ('000)



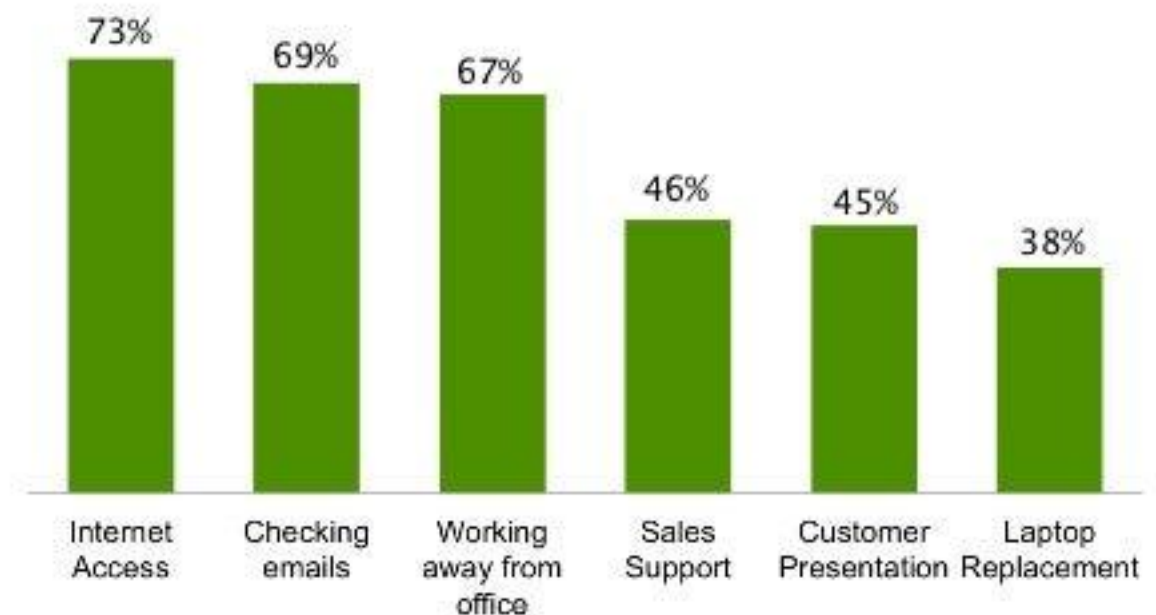
- Apps form a critical part of tablets usability and experience as they continue to provide new feature sets and a whole new dimension to postponability
- While Apple App Store has over 100K iPad optimized apps, the number of apps developed for tablets on Android 3.x (Honeycomb) and other platforms are abysmally low
- While many of the existing Android smartphone apps do run on tablets, the platform SDK's<sup>2</sup> do not automatically scale the fonts and graphics for the bigger tablet displays, thus providing poor user experience

## Along with web browsing and email, media consumption (consumers) and presentations (enterprise customers) are the key tablet applications

Percentage of Users Who Use Tablets Regularly for Consuming Content



Enterprise Customers iPad Usage for Different Activities



- Tablets are primarily being adopted for consuming content, with accessing internet and checking emails being the predominant activities both by retail and corporate consumers
- While retail consumers also use tablets predominantly for multimedia consumption and gaming, enterprise consumers leverage the portability and the mobility of the device for remote access and client presentations
- Lack of end-user file management system and ergonomic design for prolonged creation of spreadsheets and presentations does not yet make the tablet conducive for replacing PCs in enterprises



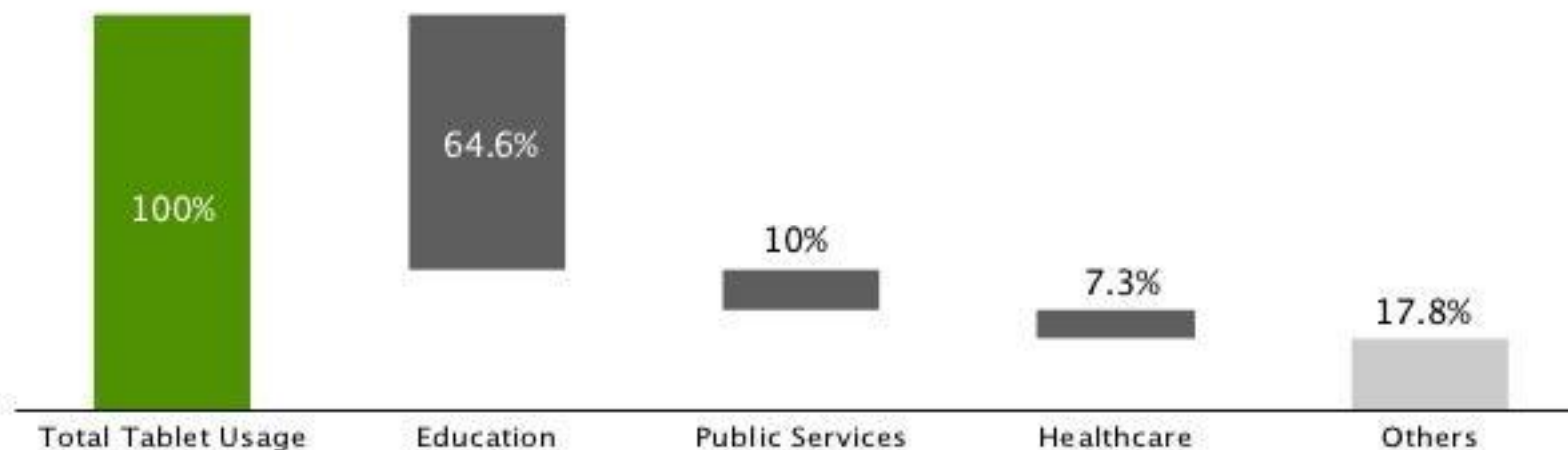
## Tablets can also be adopted as primary devices in various industry verticals for diverse uses and applications

### Various Tablet Use Cases for Different Industry Verticals

Healthcare	Education	Aviation	Retail
<p>Typical use cases of tablets in the Healthcare industry include:</p> <ul style="list-style-type: none"> <li>• Electronic Medical Records</li> <li>• Speech Therapy</li> <li>• Digital Imaging</li> <li>• Patient Education</li> <li>• Sign out</li> <li>• Billing</li> </ul>	<p>Typical use cases of tablets in the Education industry include:</p> <ul style="list-style-type: none"> <li>• Digitized Textbooks</li> <li>• Annotate Notes &amp; Textbooks</li> <li>• Interactive apps for education</li> <li>• Note Taking</li> <li>• Streaming of educational content</li> </ul>	<p>Typical use cases of tablets in the Aviation industry include:</p> <ul style="list-style-type: none"> <li>• Flight Charts</li> <li>• Access to Terminal Approach &amp; Procedures Charts</li> <li>• Airport/Facility Directory</li> <li>• Weather Briefing</li> <li>• Altitude Charts</li> </ul>	<p>Typical use cases of tablets in the Retail industry include:</p> <ul style="list-style-type: none"> <li>• Point of Sale Terminals</li> <li>• Customization</li> <li>• Sales Assistant</li> <li>• E-Commerce</li> <li>• Digital Signages</li> <li>• Online Catalogs</li> </ul>
<ul style="list-style-type: none"> <li>• Healthcare industry in the West (especially the US) has exploited technology for a long time</li> <li>• Commercial Consumer tablets are coming in as cheaper alternatives and as supplemental devices</li> </ul>	<ul style="list-style-type: none"> <li>• Universities and Schools adopting Tablets in a big way in the US for a variety of uses</li> </ul>	<ul style="list-style-type: none"> <li>• The FAA has allowed the use of iPad for electronic flight charts. Big airlines such as United and Alaskan Airlines have replaced their Flight Manuals with digitized copies on the iPad</li> </ul>	<ul style="list-style-type: none"> <li>• While online catalogs will aid sales, Retailers are slowly turning to tablets to enhance the in-store purchase experience for the consumer</li> </ul>

**While some industries are still in the pilot mode, education industry across the world has gone ahead to adopt tablets full time**

**Large Scale Tablets Deployment Across the World -  
Share by Industry Vertical (July 2011)**



- While many industries are testing/piloting tablets as a potential replacement for their current devices, education sector across the world has already started deploying these devices
- Various universities and colleges are providing tablets to faculty and students (sometimes as loaner devices for the duration of the course) for downloading digital textbooks, podcasts, assignments, etc
- Various government departments such as Bureau of Land Management, City Councils, Police Force, Geological Survey Dept, etc in US & UK are using tablets for documentation, instant database access, and as a part of their paper reduction initiatives



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## The tablets supply side value chain includes both hardware & software providers along with consumer interface such as carriers/retail channel








- Chipset vendors develop various processors used in tablets such as CPU, GPU, RF processor, etc
- Other key hardware components such as Touchscreen Display, Memory, Battery, etc are provided by various component makers
- Operating System (OS) providers not only develop the OS for devices, but they also enable third party application developers to develop apps and help grow the ecosystem
- While companies such as Apple & Blackberry develop the OS for their own products, Google & Microsoft partner with tablet OEMs to license OSs
- Hardware and software integrators help enable finished products for OEMs
- Device makers develop and launch tablets in various global markets either in partnership with carriers and/or through retail channel
- Carriers provide the requisite 2.5G/3G/4G connectivity for tablets to be used on the go. In some cases, carriers partner with OEMs to launch tablets bundled with their services
- Retail distribution channel plays a key role in tablets sales and Go-To-Market strategy of OEMs





## Of all the global tablet ecosystem players, Apple has managed to integrate most elements of the value chain

Player	Role in the Value Chain	Analysis
Apple		<ul style="list-style-type: none"> <li>• Apple has managed to integrate most elements of the tablets value chain and provide end-to-end value proposition</li> <li>• It is accredited with creating the tablets category, enabling the paradigm shift to multi-touch and establishing prices for the segment</li> </ul>
Samsung		<ul style="list-style-type: none"> <li>• Samsung is a key player in the ecosystem. It provides critical hardware components such as displays, memory, etc and also manufactures its own tablets under the sub-brand "Galaxy"</li> </ul>
Google		<ul style="list-style-type: none"> <li>• Leading Android development and making it accessible to all OEMs and app developers, Google has opened up the tablet ecosystem for a myriad of ecosystem players</li> <li>• With acquisition of Motorola Mobility, Google has in-house hardware capabilities for potentially building a device of its own</li> </ul>
Microsoft		<ul style="list-style-type: none"> <li>• With very few Windows 7 based tablets launched in the market and with it's tablet-optimized operating system (Windows 8) yet to be commercially released, Microsoft is a late entrant into the tablet ecosystem (not counting tablet PCs)</li> <li>• However, partnering with over 55% of Android vendors gaining royalty for Android use, Microsoft is ensuring revenues from increased use of Android OS</li> </ul>
Design Houses in China & Taiwan		<ul style="list-style-type: none"> <li>• The design houses and hardware manufacturers in Shenzhen (China) and Taiwan are enabling the OEMs to acquire and market readily available devices, thus driving the low and mid end tablet penetration in emerging markets</li> </ul>

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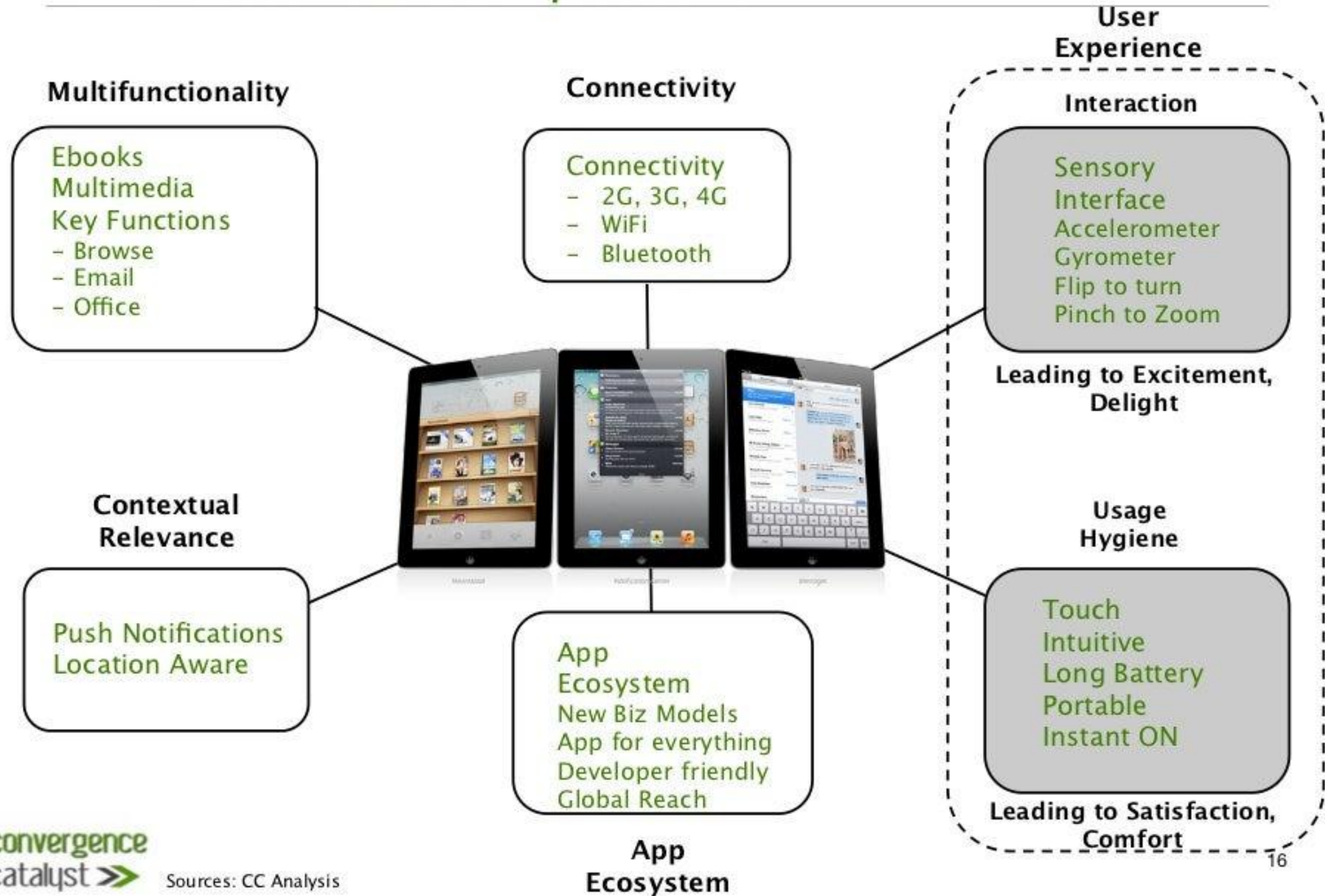
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## Tablets offer multiple services and experiences (which were earlier delivered on multiple platforms) on a single device



## Intuitive user interface, portability and instant access to digital content makes Tablet an ideal consumption device





## Primarily being a consumption device, Tablet will co-exist with both mobile phones and computers

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### Primary **Communication** Device

Basic Voice Communications to sophisticated Smartphones

Highly Portable, highly capable, but still short on Display sizes



### Primary **Computing/Creation** Device

Basic creation to sophisticated computing

Highly capable but, primary interface is a keyboard for creating



### Primary **Consumption** Device

Basic creation to heavy duty consumption

Highly portable, excellent via media for everyday tasks due to touch interface, instant on, long battery life. Work + Entertainment for all situations





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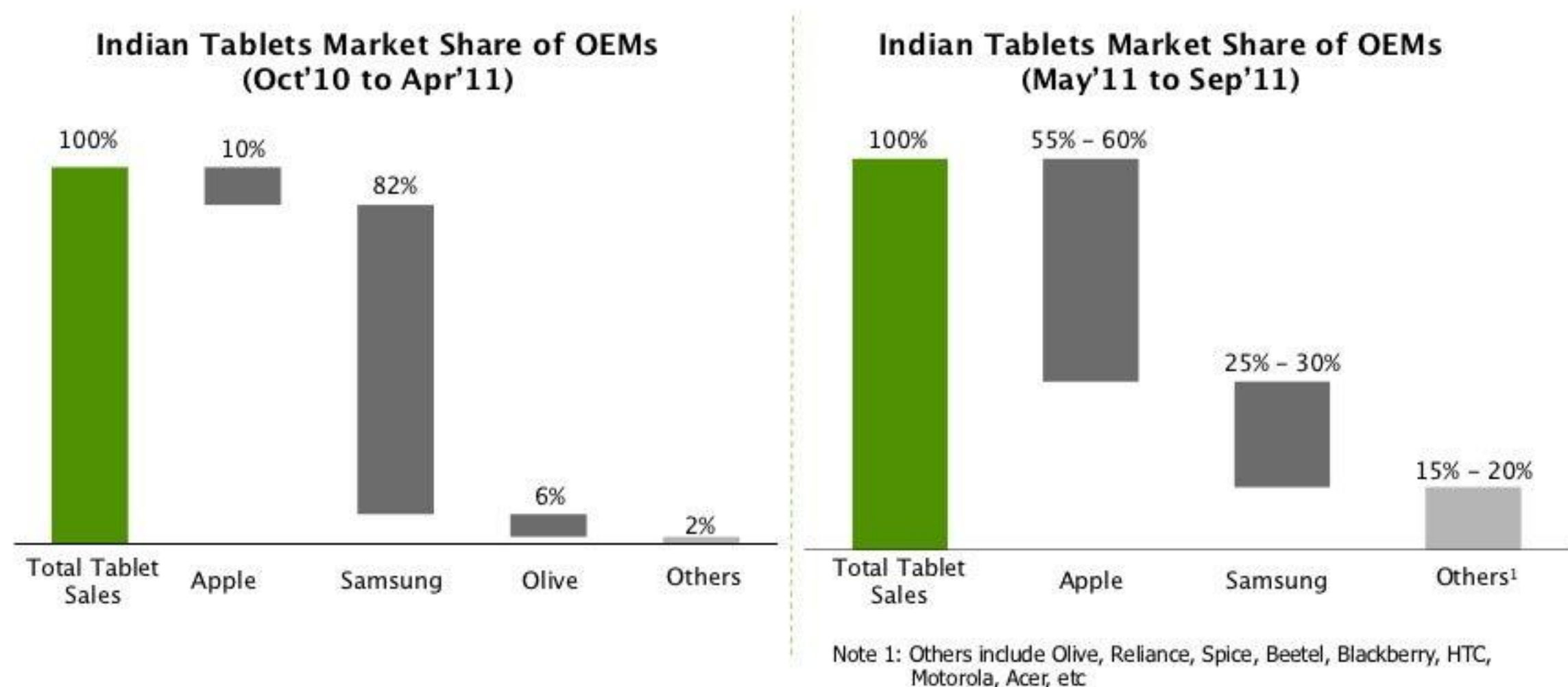
## In India, Tablets were introduced in Oct 2010 with the launch of Samsung Tab and Olive Pad

### Timelines of Key Tablets Launched in India



- Tablets were introduced in the Indian market in October, 2010 with the launch of Samsung Galaxy Tab (7-inch) and Olive Pad VT100, both Android-based devices
- Although Apple launched iPad 1 in India in January 2011, it could not garner significant sales as iPad 2 was announced globally around the same time
- Reliance 3G Tab is the first tablet launched by a telecom carrier (Reliance), bundled with 3G services

## Until the launch of Apple's iPad 2 in May 2011, Samsung Galaxy Tab was the leading tablet sold in India



- For the first two quarters of tablets availability in India, Samsung Galaxy Tab dominated the market
- With the launch of their globally successful iPad 2 at the end of April, and with decreased price of iPad 1 by various retail chains, Apple has managed to lead the market since May 2011, catering to early adopters in India
- As per our estimates, the tablets market has also grown by 60% to 80% between May and Oct 2011, (post the iPad 2 launch) as compared to Oct '10 to Apr '11 due to increased distribution and consumer awareness