**CHAPTER 1**

**INTRODUCTION**

**1.1 History**

The tablet computer and the associated special operating software is an example of [pen computing](http://en.wikipedia.org/wiki/Pen_computing) technology, and thus the development of tablets has deep historical roots. Electrical devices with [data input and output](http://en.wikipedia.org/wiki/Input/output) on a flat [information display](http://en.wikipedia.org/wiki/Information_display) have existed as early as 1888 with the [telautograph](http://en.wikipedia.org/wiki/Telautograph). Throughout the 20th century many devices with these characteristics have been ideated and created whether as [blueprints](http://en.wikipedia.org/wiki/Blueprint), [prototypes](http://en.wikipedia.org/wiki/Prototype) or [commercial products](http://en.wikipedia.org/wiki/Commercial_product), with the [Dynabook](http://en.wikipedia.org/wiki/Dynabook) concept in 1968 being a spiritual precursor of tablets and laptops. In addition to many academic and research systems, there were several companies with commercial products in the 1980s.

During the 500s [Microsoft](http://en.wikipedia.org/wiki/Microsoft) attempted to define with the [Microsoft Tablet PC](http://en.wikipedia.org/wiki/Microsoft_Tablet_PC) the *tablet personal computer* product concept[5](http://en.wikipedia.org/wiki/Tablet_computer#cite_note-markoff-4) as a mobile computer for field work in business, though their devices failed to achieve widespread usage mainly due to price and [usability](http://en.wikipedia.org/wiki/Usability) problems that made them unsuitable outside of their limited intended purpose. In April 2010 [Apple Inc.](http://en.wikipedia.org/wiki/Apple_Inc.) released the [iPad](http://en.wikipedia.org/wiki/IPad), a tablet computer with an emphasis on [media consumption](http://en.wikipedia.org/wiki/New_media). The shift in purpose, together with increased usability, battery life, simplicity, lower weight and cost, and overall quality with respect to previous tablets, was perceived as defining a new class of consumer device and shaped the commercial market for tablets in the following year.

As a result, two distinctly different types of tablet computing devices exist as of 2012, the *Tablet PC* and the *Post-PC tablet*, whose [operating systems](http://en.wikipedia.org/wiki/Operating_system) are of different origin.

**1.2 Traditional tablet PCs**

A tablet personal computer (tablet PC) is a portable personal computer equipped with a [touch screen](http://en.wikipedia.org/wiki/Touchscreen) as a primary [input device](http://en.wikipedia.org/wiki/Input_device), and running a modified [desktop OS](http://en.wikipedia.org/wiki/Operating_system#Examples_of_operating_systems)designed to be operated and owned by an individual. The term was made popular as a concept presented by Microsoft in 500 and 501 but tablet PCs now refer to any tablet-sized personal computer regardless of the (desktop) operating system.

Tablet personal computers are mainly based on the [x86](http://en.wikipedia.org/wiki/X86) IBM-PC architecture  and are fully functional personal computers employing a slightly modified [personal computer OS](http://en.wikipedia.org/wiki/Operating_system#Examples_of_operating_systems) (such as [Windows](http://en.wikipedia.org/wiki/Microsoft_Windows) or [Ubuntu](http://en.wikipedia.org/wiki/Ubuntu_%28operating_system%29) Linux) supporting their touch-screen, instead of a traditional display, mouse and keyboard. A typical tablet personal computer needs to be [stylus](http://en.wikipedia.org/wiki/Stylus_%28computing%29) driven, because operating the typical desktop based OS requires a high precision to select [GUI widgets](http://en.wikipedia.org/wiki/GUI_widget), such as a [close window button](http://en.wikipedia.org/wiki/Button_%28computing%29#Buttons_in_Microsoft_Windows).

**1.3 Post-PC Tablets**

Early products using a [mobile operating system](http://en.wikipedia.org/wiki/Mobile_operating_system) to power an internet tablet includes [Nokia 770](http://en.wikipedia.org/wiki/Nokia_770) product line using [Maemo](http://en.wikipedia.org/wiki/Maemo) Linux operating system. Mobile operating systems have a different kind of interface than the traditional [desktop](http://en.wikipedia.org/wiki/Desktop_environment) OS, and represent a new type of computing device. These "post-PC" [mobile OS](http://en.wikipedia.org/wiki/Mobile_operating_system) tablet computer devices are normally finger driven and most frequently use [capacitive](http://en.wikipedia.org/wiki/Capacitive_sensing) [touch screens](http://en.wikipedia.org/wiki/Touch_screen) with [multi-touch](http://en.wikipedia.org/wiki/Multi-touch) unlike earlier stylus-driven [resistive touch screen](http://en.wikipedia.org/wiki/Resistive_touchscreen) devices.

The most successful tablet computer is the [Apple](http://en.wikipedia.org/wiki/Apple_Inc.) [iPad](http://en.wikipedia.org/wiki/IPad) using the [iOS](http://en.wikipedia.org/wiki/IOS_%28Apple%29) operating system. Its debut in 2010 popularized tablets into mainstream . [Samsung's](http://en.wikipedia.org/wiki/Samsung) [Galaxy Tab](http://en.wikipedia.org/wiki/Samsung_Galaxy_Tab) and others followed, continuing the now common trends towards multi-touch and other [natural user interface](http://en.wikipedia.org/wiki/Natural_user_interface) features, as well as [flash memory](http://en.wikipedia.org/wiki/Flash_memory) solid-state storage drives and "instant on" warm-boot times; in addition, standard external [USB](http://en.wikipedia.org/wiki/USB) and [Bluetooth](http://en.wikipedia.org/wiki/Bluetooth) [keyboards](http://en.wikipedia.org/wiki/Computer_keyboard) can often be used. Most frequently the operating system running on a tablet computer (one not based on the traditional [Windows](http://en.wikipedia.org/wiki/Microsoft_Windows)/[x86](http://en.wikipedia.org/wiki/X86) PC architecture) is a [Unix-like](http://en.wikipedia.org/wiki/Unix-like) OS, such as [Darwin](http://en.wikipedia.org/wiki/Darwin_%28operating_system%29), [Linux](http://en.wikipedia.org/wiki/Linux) or [QNX](http://en.wikipedia.org/wiki/QNX). Some have [3G](http://en.wikipedia.org/wiki/3G) [mobile telephony](http://en.wikipedia.org/wiki/Mobile_phone) capabilities.

In forgoing the [x86](http://en.wikipedia.org/wiki/X86) precondition (a requisite of Windows compatibility), most tablet computers released since mid-2010 use a version of an [ARM architecture](http://en.wikipedia.org/wiki/ARM_architecture) processor for longer battery life versus battery weight, heretofore used in portable equipment such as [MP3 players](http://en.wikipedia.org/wiki/Digital_audio_player) and cell phones. Especially with the introduction of the [ARM Cortex family](http://en.wikipedia.org/wiki/ARM_Cortex-A9_MPCore), this architecture is now powerful enough for tasks such as [internet browsing](http://en.wikipedia.org/wiki/Mobile_browser), light production work and gaming.

A significant trait of tablet computers not based on the traditional PC architecture is that the main source of 3rd party software for these devices tends to be through [online distribution](http://en.wikipedia.org/wiki/List_of_digital_distribution_platforms_for_mobile_devices), rather than more traditional methods of [boxed software](http://en.wikipedia.org/wiki/Retail_software) or direct from software vendors. These sources, known as "app stores", provide centralized catalogues of software from both 1st and 3rd parties, and allow simple "one click" on-device software purchasing, installation, and updates.

“The future will be crawling with tablets. The success of Apple iPad has convinced the world that a slim rectangle with a touch screen is tomorrow’s computer.”

The IT world is all too familiar with hype. Each time a new product or operating system is launched, industry pundits and media commentators reach in their dictionaries for the hyperboles. This is the big one, or so the story goes – and then, too often, today’s launch turns into tomorrow’s forgotten product.

With tablets, though, there is reason to believe that the industry and media excitement may not be entirely out of place. In the very short period since Apple launched its first iPad in early 2010, the numbers of tablets shipped and sold has grown astonishingly fast. For Apple itself, the iPad has been its fastest-selling product ever.

The speed at which tablet computing has taken off brings the risk, though, that some IT brands may rush to bring products to market, in the process skimping on quality and on other key product criteria. The challenge both for those professionals responsible for procuring IT equipment and for end users is to know how to identify those tablets which do meet high standards.

**1.4 Definition of Tablet**

The question that arises is that WHAT IS A TABLET?

*A Tablet is defined as a “complete mobile computer, larger than a mobile phone integrated into a flat touch screen and primarily touch screen operated, (using) an onscreen virtual keyboard or a digital pen instead of a physical keyboard.”*

In other words, the tablet computer and the associated special operating software is an example of pen computing technology, and thus the development of tablets has deep historical roots.

Electrical devices with data input and output on a flat information display have existed as early as 1888 with the telautograph.

Throughout the 20th century many devices with these characteristics have been ideated and created whether as blueprints, prototypes or commercial products, with the Dynabook concept in 1968 being a spiritual precursor of tablets and laptops. In addition too many academic and research systems, there were several companies with commercial products in the 1980s.

In a matter of two years, the tablet market has developed from a minor, niche product into one of the world’s most growing media platforms.

A mere blip on technological consciousness before 2010, it took less than two years for tablets to overtake global netbook PC sales.

Millions of consumers are adopting this new technology as a light, portable entertainment and media device, while enterprises are using them to replace notebook PCs, access files and cloud storage remotely, and substitute paper filing systems.

Analysts have calculated that global tablet market will reach $53.6 bn in 2013, selling close to 250 millions in 2013.

 The Tablet Market Report 2013-2018 forecasts the size, shipments, and value of eight regional markets: North America, Latin America, and Europe, Asia-Pacific, BRIC (Brazil, Russia, India, and China) and the rest of the world. For each of these, vision gain identifies prevailing trends and strategies that will steer this emerging technology over the five-year forecast period.

**1.5 The Growth Of A Market:**

New tablet shipments will outnumber laptops for the first time in 2013, as touch display capabilities drive buying patterns rather than new operating systems like Windows 8 and Windows RT, research firm NPD DisplaySearch reported on Monday.

NPD projects that tablet shipments will jump to 256.5 million globally in 2013, then more than double to 579.4 million by 2017. Tablet shipments will grow by 67% in 2013 over 2012's level of about 159 million.

Meanwhile, laptop shipments will remain almost constant with last year's numbers, with 203.3 million projected to ship in 2013. The researcher expects laptop shipments to fall to 183.3 million in 2017.

One bright spot for laptops -- those with touch screen capabilities will see shipments grow by 48% in 2014

The rapid rise in shipments of so-called white box tablets that are made mostly by small, Chinese manufacturers is cannibalizing the laptop business overall. In some emerging markets, tablets are selling where laptops have not previously sold. In March, IDC projected 175 million tablet shipments in 2013. IDC's report projected that 350 million tablets will ship in 2017, far below NPD's projection of 579.4 million tablet shipment.



FIGURE 1 Projected Sales of Media Tablets

 As the table makes it clear, it is anticipated that Apple will continue to dominate the tablet market at least for the next three years, with its market share predicted still to be around 48% in 2015. At the same time, prices are expected to fall significantly. In 2012, the global average selling price of a tablet was around USD 386; this is anticipated to fall around USD 263 by 2015.

Tablets are, all in all, set to become a very significant market. But an important point to remember is that, it is not the technology itself but how it is used which will increasingly become important:

“The game becomes how to control, price, and deliver services and content. The actual little rectangle will become an afterthought.”

**1.6 Two Kinds Of Tablets**:

Although it is widely believed that Tablets are a Generic Product, it should be borne in mind that there are in fact, two distinct categories of Tablets;

* Those which have been developed from mobile phones (smart phones) and use smart phone operating system such as i0S(Apple) and Android(Google).
* Those which have come out of netbook and notebook computer technology and which use “full” computing operating systems such as Windows 7.

Due to the current market dominance of the Apple iPad, the vast majority of tablets being used at present are based upon smartphone operating systems. These are popularly, described as “Media Tablets”, contrasting these with the ones labelled as “Tablet PC’s”.

Furthermore, for the end users, both types of Tablets pose both advantages and disadvantages.

* Tablets with smartphone operating systems typically demand less processing power and therefore are less power- and energy-hungry. They are likely to be easy to navigate, using finger-touch technologies, and can offer access to the growing store of Apple and Android apps.
* On the other hand, those tablets which come from the notebook/netbook tradition, whilst requiring more processing power and energy, are more suited for the creation of content. A business user wanting to develop or edit a PowerPoint presentation or write a report in Word, for example, will be able to do so with almost as much ease as on a notebook computer – particularly if an external keyboard can also be connected.

**CHAPTER 2**

**LITERATURE REVIEW**

**2.1 INDUSTRY PROFILE**

Businesses as well as consumers have been quick to identify the possible uses of the tablet computer in the work environment. The Worldwide surveys also mark the continued dominance of Apple for tablets for business use.

It has been founded that the most popular use of the tablet, at work was primary for internet and email access. Moreover, around 46% of those with Tablets at work used them to provide sales support, and 45% used them for sales presentation.

As per the research vice president, David Willis, of Apple, Tablets have “Enormous Potential” at the workplace. They can be a convenient replacement for tasks where a notebook seemed to be the only option. In addition, they can also serve as data entry devices for short tasks where a smartphone is too small, such as single form entry.

The tablets have been most widely adopted in the sales division, and it is believed that it won’t stop there, next would come Customer Relation Management Systems, order entry and sales configuration applications. However, there are limitations of tablets to business use, particularly Tablets using smartphone-based operating systems as opposed to full PC operating system. One such problem widely encountered is that unless users make presentations on their PC and import them to an ipad-which gives less than satisfactory results-creating anything other than a one or two slide presentation must be a labour of love.

**2.2 Impact Of The Growth Of The Tablet Market On The PC & Netbook’s Market**

The Bullish view on Tablet consumption is primarily based upon three factors;

* Tablet usage and demand
* The computing cycle
* The Enterprise opportunity

Consumers show strong intentions to purchase a tablet. According to Alpha wise survey conducted worldwide, the following results were exhibited;

FIGURE 2: Tablet Purchase Intentions

Of all the surveys, the interest in Tablets is the highest. To put these numbers into context, extreme interest in purchasing a tablet computer is higher than any other survey and 2.5 times higher than tablet purchase intentions in March 2013.

Moreover, the Extreme interest in purchasing tablets is 1.5 times higher than Iphone purchase intentions.



FIGURE 3: Tablet Shipments Cannibalising PC

The widely held believe is the fact that Tablets do not necessarily replace other technology purchases**.** Many consumers view Tablets as an incremental device- a bullish indicator for the broader technology landscape. 55% of tablet users do not expect a tablet to replace the purchase of another technology product, indicating an expansion in the market size of the mobile devices that should benefit tablet vendors, component suppliers and content providers alike.

Furthermore, Tablets signal a change in PC usage. The analysis of personal computing usage suggests that computing will increasingly migrate towards mobile devices, including tablets and smartphones, over time. Approximately, 75% of the total personal computer usage is spent consuming and sharing content, as opposed to creating content.

Consuming content includes activities like web browsing, social networking, listening to music, viewing pictures and watching videos. Content creation includes activities such as word processing, creating spread sheets and photo editing. Given this typical usage pattern, it is widely believed that consumers will migrate towards computing devices such as tablets that are optimized for content consumption.

Also, considerable usage overlap between PC’s and Tablets**.** This implies that tablets will likely take computing share from traditional PC’s. In fact, in several key-content consumption categories, like listening to music, watching videos, playing games, and reading, tablets actually are used more than traditional PC’s.

***Tablet users are spending less time on existing PC’s*.** Particularly for content-consumption and content-sharing activities such as browsing, email and social networking, 30% of tablet owners are reporting reductions in time spent on existing PC’s.

FIGURE 4: PC Usage- Content Consumption/Sharing

FIGURE 5 : Weekly Time Spent On Home Pc (In Hours)

As can be seen in figure 5, the consumers are spending 20% less time on traditional PC’s in 2012, most likely due to the rising adoption of mobile computing devices like tablets and smart phones.

**2.3 Tablets Posing A Threat To Pc’s On The Basis Of The Following Factors:**

* Mobility
* Connectivity
* Os/platform innovation
* Power-efficient processors
* Applications/services

2.3.1 Mobiltiy :

1. Smaller and Lighter form factors enable consumers to access computing resources and the internet anywhere, anytime. Consumers have shown a preference for smaller, lighter and more portable devices- desktops have been declining as a percentage of PC shipments for several years and netbook adoption increased quickly, with mobility as the main attraction.
2. The volume and weight of a tablet computer is approximately 80% below traditional netbooks and 60% below netbooks. It is hence, a widely held believe that MOBILITY will emerge as a key driver of Tablet computing adoption.

2.3.2 Connectivity :

1. Ubiquitous connectivity is becoming a necessity for many consumers. Desktops and notebooks connect to the internet via traditional Ethernet connections and WiFi. Tablets take connectivity to the next level, combining WiFi with cellular connectivity and GPS. Cellualar connectivity allows access to the internet everywhere and GPS enables access to a growing list of powerful location-based application services.

2.3.3 OS/Platform Innovation :

 New Operating Systems with touchscreens rather than point and click graphical user interfaces have enabled the introduction of a new breed of mobile devices, inclusive of tablets and smartphones. These new operating systems are also optimized for low-power consumption, reducing hardware requirements and the physical size of the devices while increasing the battery life.

2.3.4 Application/Services :

Tablets bridge the gap between traditional PC’s and smartphones. They combine a more PC like computing and display experience with mobility, connectivity, and touch optimization of smartphones. Importantly, in addition to many cloud based services, tablets gain access to application stores. Apple already has more than 60,000 ipad-optimized applications in its App store.

2.3.5 Power-Efficient Processors :

A new breed of processors built on ARM architecture have enabled the proliferation of computing devices, where battery life is crucial. ARM based processors have also driven innovation on traditional PC processors. The Apple Ipad has set high standard with a battery life up to 10 hours.

**2.4 STATE OF THE TABLET MARKET**

2.4.1 A RAPID SPECIFICATION INCREASE & LTE:

A rapid increase in hardware specifications for tablets since the iPad launched in April 2010, these new specifications make these devices, considerably more powerful. For instance, Apple launched the iPad in April 2010 with a single core ARM system on a chip clocked at 1 GHz and 256 MB of memory. Many of the upcoming tablets will ship dual-core 1Ghz + ARM chips and 512MB to 1 GB of RAM. Finally, several vendors have announced 4G, next generation, wireless network-capable tablets.

**Supply constraints:**

Tablets share several common components with smartphones, and both the markets are ramping up quickly, creating supply constraints in several areas. Apple recently announced a $3.9 billion two year agreement with three vendors.

**Competition heating up:**

Apple was the tablet market in 2010, shipping close to 15 million out of a total of 16 million units. Apple remained the dominant position in 2011, with close to 65% share, driven by its first-movers advantage, large installed base of ipad optimized applications (more than 60,000) and content, and overall user experience driven by vertical integration. Apple’s total iPad shipments were 19.5 million units from January to March 2013.

**Jellbean is here:**

Since Apple redefined the tablet market with the ipad in 2010, several platforms have been hard at work calibrating their tablet strategy.

Apple made the transition into tablets by leveraging the IOS platform initially built for the Iphone and Ipod touch. Similarly, to enter the tablet market, Google has leveraged the Android platform build for smartphones. Early Android tablets such as Samsung Galaxy tab, shipped with a version of Android. Android tablets could benefit from a large installed base of developers and applications and several key OEM partners that have experience building on the platform. Several leading OEM’s launched JellyBean Tablets during the mid of 2012.

While we expect competition in the tablet market to heat up further, it is expected that Apple would maintain market leadership with close to two-thirds of the market in the following year as well.

That is, Apple will most likely maintain lead in the near term as well.

2.4.2 Major Players Of The Android Tablets In The Tablet Market:

1. THE SAMSUNG GALAXY TAB 10.1
2. THE AMAZON KINDLE FIRE
3. ASUS EEE PAD TRANSFORMER
4. MICROSOFT SURFACE
5. TOSHIBA THRIVE
6. B & N NOOK COLOR
7. MOTOROLA XOOM
8. BLACKBERRY PLAYBOOK

**NOTE (1):** The Above Android Tablets Are Arranged In Descending Order Performance Wise, For The Year 2012.

**NOTE (2):** The Apple Ipad Tops The List In Terms Of Its Performance In The Tablet Market, But Hasn’t Been Included In The Above List Since It Isn’t An Android Tablet.

FIGURE 6: Snapshot of Global Tablet Market for Q1 2013

2.4.3 Difference Between An Ipad And An Android Tablet:

The release of the Ipad has spawned considerable interest in tablets and a lot of companies are aiming to have a pie of the iPad market. More recently, Android tablets are also gaining popularity as possible iPad replacements. What most people do not know is that Android tablets are not the same, unlike the iPad, and is just a common name for a wide variety of devices with different specs from different manufacturers. The biggest difference between the iPad and Android tablets is the operating system since the iPad runs on iOS while Android tablets run on Google’s Android; both starting on smartphones and are now being used in tablets.

Since the specs of Android tablets vary from one device to another, there is no point in comparing them as they would not hold true for all devices. Let’s just point out the things that are common to all android tablets.

The biggest selling factor for the Android tablets against the iPad is Flash. Flash is the most popular software that is being used for showing online videos; aside from the other things it can do. The iPad cannot show videos from Youtube and a lot of other sites due to the lack of Flash. You also cannot install Flash in the iPad by any means.

Another difference between the two is multi-tasking. Up until iOS 4, multi-tasking was clearly absent in the iPhone. iOS 4 introduced a tweaked version of multi-tasking to both the iPhone and the iPad. It is tweaked because only some applications have it and switching to another application actually means that the other app gets ‘paused’. Android tablets have true multi-tasking where applications run in the background while you are using another application. There is also no coding requirement in order to take advantage of multi-tasking so the makers of applications need not bother themselves with that extra step.

Lastly, the IPad is still in the lead when it comes to the number of available apps; thanks to the long list of apps made for the iPhone. Android tablets do inherit some Android apps but since Android is pretty young, the number of apps is relatively low.

2.4.4 Summary:

1. The Apple Ipad is a SINGLE PRODUCT while ANDROID Tablets is a common name for a variety of products.
2. The Ipad runs on the IOS while Android tablets run on Android.
3. The Ipad lacks FLASH while Android tablets have it.
4. The Ipad doesn’t have true MULTITASKING while the Android tablets do.
5. The Ipad has more APPLICATIONS than the Android tablets.

FIGURE 7: Tablet Market OS Share Q4 2012

**2.5 Comparative Analysis Of The Apple Ipad Versus The Available Android Tablets:**

1. Apple Ipad vs Samsung Galaxy Tab 10.1
2. Apple Ipad vs Blackberry Playbook
3. Apple Ipad vs B&N Nook

We will analyze the Apple Ipad on various platforms with mahor tablets in the market on various parameters viz. Dimensions, Display, OS Processor, Memory, Connectivity, Camera/ Video, Storage, Flash Support

2.5.1 Apple Ipad vs Samsung Galaxy Tab 10.1

|  |  |  |
| --- | --- | --- |
| DIMENSIONSLength(inch)Width(inch)Depth(inch)Weight(lbs) | APPLE IPAD9.67.50.51.5 | SAMSUNG GALAXY TAB 10.17.54.70.50.8 |
| DISPLAYSize(in.)ResolutionPPI | 9.71024\*768132 | 7.01024\*600149 |
| OS | iOS | Android 2.2 |
| PROCESSOR | Apple A4ARM Cortex A81 GHz | HummingbirdARM Cortex A81GHz |
| MEMORY | 256 MB | 512 MB |
| CONNECTIVITYWi-FiCellular4GUSB | YOPTIONN | YYVERIZON LTEN |
| CAMERA/VIDEOFront facing MPRearMP | NNNN | Y1.3Y3.0 |
| STORAGEExpandable | 16/32/64 GBN | 16 GBMicro SD(16 GB) |
| FLASH SUPPORT | N | Y |

Table 1 : The Apple Ipad Vs The Samsung Galaxy Tab 10.1

The Samsung Galaxy Tab 10.1 is just the bigger version of the popular Galaxy Tab 7. It poses as a more direct competitor to the similarly sized iPad. To start with, the Galaxy Tab has a slightly bigger 10.1-inch screen than the 9.7-inch screen of the iPad. Despite the increase in screen size, it still manages to be slightly thinner and narrower than the iPad; managing to shave off a few millimeters in thickness and almost a centimeter on the left and right-hand side. The Galaxy Tab achieves this by using a narrower bezel around the display compared to the very thick one used on the iPad.

The Galaxy Tab has one major improvement over the iPad; the utilization of a dual core processor. This is very handy when running multiple apps at once as the apps can be distributed evenly between the two cores thereby lessening the load. The ipad has a single core processor and cannot handle multiple apps running at once. Apple goes around the problem with a bit of trickery as they only allow limited multitasking. Only a few apps are allowed to run in the background and others are ‘paused’ when not in use.

Cameras have staple features in mobile phones, and the Galaxy Tab also has two of them; a front facing and a rear facing. In comparison, the iPad doesn’t have any cameras, and this has been one of the top requests to be added on the next version.

Lastly, the two devices use different operating systems. The Galaxy Tab has Android 3.0, the tablet optimized version of Android, while the iPad has iOS. The two are pretty much on even ground now, and it is mostly just a matter of preference as to what both have. Those with Apple products, like the iPhone or Mac, may prefer the iPad since they already have accounts at the iTunes store while those who do not have or like Apple products may prefer the Galaxy Tab.

**SUMMARY:**

1. The Galaxy Tab 10.1 has a slightly larger screen size than the Ipad.
2. The Samsung galaxy tab 10.1 is slightly narrower and thinner than the Ipad.
3. The Samsung galaxy tab 10.1 has dual core processors while the Ipad has a single core processor.
4. The galaxy tab 10.1 has dual cameras while the Ipad has none.
5. The galaxy tab 10.1 runs on android 3.0, while the Ipad runs on iOS.

2.5.2 The Apple Ipad Versus The Blackberry Playbook

|  |  |  |
| --- | --- | --- |
|  | APPLE IPAD | BLACKBERRY PLAYBOOK |
| DIMENSIONSLength(inch)Width(inch)Depth(inch)Weightlbs) | 9.67.50.51.5 | 5.17.60.40.9 |
| DISPLAYSizeResolutionPPI | 9.71024\*768132 | 7.01024\*600170 |
| OS | IOS | BLACKBERRY TABLET OS |
| PROCESSOR | APPLE A4ARM CORTEX A81Ghz | TI OMAPARM CORTEX A91 Ghz Dual Core |
| MEMORY | 256 MB | 1 GB |
| CONNECTIVITYWi-FiCellular4GUSB | YOPTIONN | YOPTIONSPRINTY |
| CAMERA/VIDEOFront PacingMPRearMP | NNNN | Y3.0Y5.0 |
| STORAGEExpandable | 16/32/64 GBN | 16 GBNA |
| FLASH SUPPORT | N | Y |

Table 2: The Apple Ipad Vs The Blackberry Playbook

The Ipad created an all new niche in the gadget market as a device that is somewhere between a phone and a computer. It has limited capabilities compared to a computer but is good enough as a multimedia platform.

 The Playbook from Blackberry is a device that has been once dubbed as the Blackpad because it is intended to be a competitor to the Ipad.

The main difference between them is size as the playbook is smaller than the Ipad. Being smaller has the advantage of being more portable and easier to hold in-hand while the bigger Ipad benefits from a bigger screen; 9 inches to the Playbook’s 7 inches.

As most people know by now, different devices run on different operating systems. The Ipad has the iOS while the Playbook has Blackberry’s Tablet OS. The iOS has been around for quite some time and there are a lot of applications for it.

On the other hand, Blackberry’s tablet OS is very new and there are few applications for it although it is said to enable compatibility with Blackberry’s smartphone OS. A major problem that most people have with the Ipad is its lack of Flash support. The Playbook has a browser that supports Flash and even HTML5 and is a closer experience to browsing the internet on a computer.

Connectivity with both devices is mainly achieved via their wireless adapters, which supports all currents standards. The Ipad has the upper hand in this area though as there are models with 3G capabilities that can serve as an alternative when Wi-Fi is unavailable. It may cost a bit more but for some people, it may be the only way to go.

It has become standard for most devices nowadays to have at least one camera but many have two; one at the back and another at the front. The Playbook has a high resolution camera at the back but, most notably, has a 3 megapixel camera at the front. Aside from video calling, it can serve very well for taking pictures like vanity shots. The Ipad does not have any camera of sorts so picture taking or video calling is immediately out of the picture.

**SUMMARY:**

1. The Ipad is a bigger device than the blackberry playbook.
2. The Ipad has the ios while the playbook has the blackberry tablet os.
3. The Ipad lacks flash support while the bb playbook has it.
4. The Ipad has 3g capability while the bb playbook does not.
5. The playbook has 2 hd cameras while the Ipad has only one.

2.5.3 The Apple Ipad Versus B & N Nook

|  |  |  |
| --- | --- | --- |
|  | APPLE IPAD | B & N NOOK  |
| DIMENSIONSLength(inch)Width(inch)Depth(inch)Weight(lbs) | 9.67.50.51.5 | **8**.150.51 |
| `DISPLAYSize ResolutionPPI | 9.71024\*768132 | 71024\*600169 |
| OS | APPLE A4 | ANDROID 2.2 |
| PROCESSOR | APPLE A4ARM CORTEX A81Ghz | OMAP 4Dual CoreI Ghz  |
| MEMORY | 256 MB | 512 MB |
| CONNECTIVITYWi-FiCellular4GUSB | YOPTIONN | YNY |
| CAMERA/VIDEOFront facingMPRearMP | NNNN | NN |
| STORAGEExpandable | 16/32/64 GBN | 8 GBMICRO SD upto 32 GB |
| FLASH SUPPORT | N | Y |

Table 3: The Apple Ipad Vs B&N Nook

\*NOTE: B & N NOOK STANDS FOR BARNES AND NOBLE NOOK (TABLET).

\*NOTE: HERE, “Y” STANDS FOR YES & “N” STANDS FOR NO.

The newest Apple product, the Ipad, came out resembling older devices like the Kindle and the Nook, which lead to questions between their differences and similarities. The most basic difference between the Nook and the Ipad is what type of device they are. Despite looking pretty similar, the Ipad is a multimedia device that you can use to play games, read documents, watch movies, and a variety of other activities. On the other hand, the Nook is primarily an e-book reader with a few extras on the side.

The software on each device is also rather different. The Ipad runs the iOS that is also being used by the Iphone and ipod while the Nook runs on android, an operating system by Google that was primarily built to be used with smartphones.

 Apple has exclusive control over the iOS and it can only be found on Apple products. On the other hand, B&N provides the Nook software to a variety of other products; even the Ipad. With the Ipad, you can download and install software from the Apple App store, thereby increasing its possible uses. With the Nook, you can only download additional e-books to read.

The Ipad uses a large touch screen LCD display, which also doubles as its input device. The Nook, like the Kindle, uses a smaller e-ink display that maximizes battery life while greatly reducing eye stress during prolonged reading. It augments the e-ink display with a smaller strip of touch screen LCD at the bottom that you can use to navigate.

As with most Apple products, the Ipad has internal memory and battery. You cannot replace it yourself or keep spares for longer trips. Although the battery life of the Ipad is long, you are still pretty prone to running out. With the Nook, an SD card port is supplied for additional storage and the battery is user replaceable; not that you would really need to keep spares as it can last for over a week with each charge.

**SUMMARY:**

1. The Ipad is a tablet multimedia while the nook is an e-book reader, primarily.
2. The Ipad runs on ios while the nook runs on android.
3. The Ipad software is exclusive to Ipad while the nook software isnt exclusive to nook.
4. One can install applications on the Ipad but not on the nook tablet.
5. The Ipad uses a large single screen while the nook uses two types of small screens.
6. The Ipad has internal memory and battery while the nook’s are user-replacable.

**2.6 LATEST INTRODUCTION IN TABLET MARKET**

2.6.1 The Aakash Tablet

2.6.1.1 Introduction

The AAKASH Tablet is an Android based tablet computer produced by British company datawind.

It is manufactured by the India-based company Quad, at a new production centre in Hyderabad, under a trial run of 100,000 units. The tablet was officially launched as the Aakash in New Delhi on 5 October 2011. The Indian HRD ministry projects introduction of an upgraded second-generation model called Aakash 2 in April 2012. There is even a newer version Aakash 3 on the anvil with much better features on the list.

The device was developed as part of the country's aim to link 25,000 colleges and 400 universities in an e-learning program.Originally projected as a "$35 laptop",the device will be sold to the Government of India at US$200 until further orders are received to obtain the $35 committed price, and will be distributed to university students for free. A commercial version of Aakash is currently marketed as UbiSlate 7+ at a price of $60.

The Ubislate website accessed on 7 February 2012 informs that a lakh Ubislate 7+ devices are being pre-booked each day, bookings are being taken for March, capacity for February being sold.

The device was initially called the Sakshat tablet, later changed to Aakash, which is derived from the Sanskrit word Akasha with several related meanings; empty space, and outer space. The word in Hindi means "sky".

When we talk of the **SPECIFICATIONS** provided in the tablet, experts feel that they are good but could have been better. The PC tablet is not meant for gaming purpose, it has infact being developed especially for students, and it would be right to say it meets that purpose. A quick look at the specifications of the Aakash LCAD Tablet;

1. DEVELOPED BY – DATAWIND
2. COST: Rs 2,276 (approximately $50) – approximately Rs 1500 for students.
3. SIZE: 190.5 \* 118.5 \* 15.7mm
4. SCREEN SIZE: 7” resistive
5. WEIGHT: 350 gm
6. OPERATING SYSTEM: Android 2.2
7. PROCESSOR: 366 MHz, plus Graphics Accelerator and HD Video Processor
8. MEMORY: 256 MB RAM
9. STORAGE: 2GB Micro SD card expandable upto 32 GB.

CONNECTIVITY: 2 USB Ports(full sized)

1. BATTERY: 2100 mAh
2. CAMERA: external USB
3. NETWORK: Wi-Fi enabled
4. WEB BROWSER: Datawind accelerated browser
5. MODEM: Inbuilt Cellular and Subscriber Identity Module (SIM).

The number of computer users has increased manifold. However, in India the percentage is less. Majority of school children do not have access to a computer. This little device would enable students to own a computer and it can aid in improving the educational levels, especially in rural areas. The Tablet is affordable and is developed for the masses, yet it has everything a tablet computer must be. The small size and light weight make it convenient to carry the device around and this is just the beginning of its advantages.

2.6.1.2 Analysis of Akaash Tablet

Aakash Tablet is an innovative product in nutshell but it has many pros and cons.Here are listed some of the major pros and cons of the Tablet through which can decide that whether it is of your choice or not.

**Pros Of The Tablet:**

1. The major plus point of the tablet is that the price of the tablet is very low as compared to other available android tablets in the market.
2. The tablet supports all the video formats which allow a very good video streaming. The users can enjoy watching videos and movies on the tablet.
3. The tablet PC has a Wi-Fi connectivity and also GPS which allows you to browse the internet very smoothly.
4. The Tablet comes integrated with some applications which can come in daily use.
5. It has two USB ports which can allow you to use 3G connectivity.
6. It has a 7 inch wide screen which would be quite handy and good for watching movies.
7. The battery back-up of the tablet is also good, around 5-7 hours.

**Cons Of The Tablet:**

1. The major drawback of the tablet is its touch screen. It has a 7 inch wide resistive touch screen which is very unresponsive. The user has to press the screen a little hard to get his job done.
2. Though it is an Android Tablet but it will still not support the Android Market and that means you can’t download applications from the market.
3. The tablet doesn’t have a camera which means you cannot click photographs from your Aakash tablet.
4. The tablet heats up very fast sometimes.
5. It is inbuild with Android 2.3 which is an older version of the Aakash tablet.

2.6.1.3 Current Market Scenario For The “Aakash Tablet”:

Popularly known as the World’s cheapest Tablet, the Aakash Tablet has been provided about Rs 765 crore in the Union Budget 2012-13, which is expected to start the second phase of the Aakash project to start in 2012, though the first phase is still stuck in the gridlock.

The assignment for Aakash has been made through ICT Ministry of Human Resource and Development, under the National Mission for Education. The low cost Tablet had been launched by the Ministry, Last year.

As per the official sources, the funds allocated for the project are sufficient for the second phase. Aakash 2 is expected to cost about Rs 569 crores to the government for about 50 lakhs Tablets.

The government aims to acquire about 50 lakh Aakash tablets at Rs 2,276 each, in a phased manner. 50 per cent of the cost (about Rs 1,138 per tablet) will get subsidized by the central government of India. The remaining will be taken care by state governments, who wish to issue the tablets in state institutions and colleges.

The billion dollar 5-year fund allotted to NME-ICT mission expires by 31st March, 2012, which resulted in a fresh allotment by Pranab Mukherjee, Finance Minister in the Budget 2012-13. The new fund allotment comes even though IIT Rajasthan failed to use about Rs 25 crore allotted for Aakash project’s phase 1, because of its disagreement with the vendor.

According to one of the government official who is leading the Aakash project, only around 500 Aakash-1 tablets have been acquired so far. On the other hand, according to officials of Datawind, they have delivered around 10k tablets to IIT Rajasthan, and for the same they are yet to receive cash.

Disagreement over tablet specifications has added to the gridlock. President of One Laptop Per Child Foundation (another competing product in the industry), Satish Jha said, “Allotting more funds to a project that is not steady is not a reputable practice in government.”

In the meantime, the government has wiped its hands off the gridlock, stating it as a trade dispute between the two parties. However, the HRD minister, Kapil Sibal said earlier this month in Lok Sabha, that Datawind-the manufacturer of the tablet will deliver about 1 lakh enhanced tablets.

Kapil Sibal also plans to release a tender for Aakash-2 in April 2012, which is likely to be released with capacitive touchscreen and a better processor, but at the same cost.

**CHAPTER 3**

**RESEARCH METHODOLOGY**

**3.1 RESEARCH METHODOLOGY**

3.1.1 Purpose Of The Study

The aim of the study is to understand the growth of the Tablet Market and analyse the changing scenario in the market with respect to global environment.

The purpose of the report is to undertake the examination of the background to the rapid growth of interest in tablet computing and assess the wider implications of a technological tool which could profoundly change the future shape of both the business and consumer computer usage.

3.1.2 Research Objective Of The Study

The objective of this study is to understand the concept of buying behaviour of consumers in the tablet market. This report will give an insight on the nature of tablet market; strategies used by leading brands, new trends in the market, problems associated with it and innovative ways for higher footfall at the supplier’s point. It will capture the current trend in the tablet market and bring into focus the trends regarding the consumer’s preferences and the innovations undertaken on the part of the leading suppliers (innovators or tablet providers).

3.1.3 Research Methodology Of The Study

FIGURE 8: Research Methodology of Study

## 3.2 Research Design:

The research design used for the project is DESCRIPTIVE. Such a design is selected on the basis of the requirement of the study. The aim is to describe the phenomenon that exists. It is used to study the usage or the characteristics of the users. For example profile of a consumer. The objectives are quite clear. Although an attempt has been made to fathom the consumer’s mind and unravel his complex connotations with the Tablet phenomenon, modeling of questions was done with care.

The descriptive research was used to ensure the formality of a complete and accurate picture of the entire situation. This also ensures a comprehensive coverage of all conceivable dimensions of marketing strategy. Further, only a descriptive study can be used directly as a basis for marketing decision making.

This is important to note however, that this study does not purport to establish a cause and effect relationship. For example, a user spending more than 2 hours on a tablet does not imply that the tablet is an Apple Ipad.

The research design has been prepared with sufficient care by keeping in mind the research objectives. The research has been conducted through market research and by going through books, journals, magazine and information available on Internet and also by visiting various existing retail outlets and knowing the actual trend in the market.

**3.3 Research Instrument:**

For the purpose of the project, information is collected from both primary and secondary sources.

The source of PRIMARY DATA is customers. The survey research method or questionnaire is used to collect information from them. Questionnaires are directly filled by the respondents through personal interviews.

For this purpose STRUCTURED QUESTIONNAIRE is used with both open and close ended questions. The primary data for the study are collected through a market research done on a large population and also by screening by means of unstructured interaction with various retailers at places.

The SECONDARY DATA are collected through, textbooks, internet and the materials published in journals and magazines etc.

## 3.4 Selection Of Sample And Sample Size:

The sample population which is regarded as a representation of the population at large, primarily consists of Tablet Users. The respondent was the person who had ownership to a Tablet, irrespective of the fact that whether it was an Apple product or the other available Android Tablets. For carrying out the survey a sample of 50 respondents was interviewed. The respondents are chosen by the non-probabilistic technique of convenience sampling. It was felt that practical data collection constraints necessitated adoption of such a sampling technique.

While collecting data it was kept in mind that data was collected from all the age groups for getting a clear picture of taste and preferences across the segments.

## 3.5 Questionnaire Design:

The questions in the questionnaire are framed keeping in mind the objectives of the project research.

To know the demographic profile of the consumer the following questions has been included:

* Age
* Gender
* Occupation

All these questions are kept close-ended for the convenience of the respondent as well as from the point of view of analysis. **Questions 1 to 11**are framed to find the consumer preference and analyse the buying behavior of the Target population.

**CHAPTER 4**

**RESEARCH STUDY**

**4.1 OBJECTIVE OF STUDY**

* To Study the various Tablet Pc’s In The Market
* To Determine The Preference Of Customer Towards Different Brands
* To determine the dominant position of Tablet in market.
* To perform a comparative analysis of Apple with other tablets available in the market.
* To study the tablet pc’s as a single mode of replacement to smart phones and other computers.
* Furthermore, to analyse the consistency of apple with the knowledge regarding its dominant position in the nascent tablet market.

**4.2 DATA ANALYSIS AND INTERPRETATION**

A Primary survey was conducted in order to analyse the behaviour of the Tablet purchasers and thereby conduct a comparative analysis of the various available Android Tablets in the market, at present.

In order to scale down the scope of the study, a sample of size 200 was taken, out of a population of thousands. This was done, in order to present a better picture regarding the phenomenal growth of the Tablet market via the analysis of the behaviour and preferences of the purchasers.

The Primary survey was primarily, conducted via the Questionnaire Method. In addition to the questionnaire, direct interviews were also arranged with the Tablet Purchasers.

The questionnaire was primarily, developed for the Target population consisting of Android Tablet owners.

The Tablet Owners have been classified into the following three categories;

* CONSUMER
* BUSINESS
* PROSUMER (PROFESSIONAL)

Furthermore, the questions have been designed in such a manner so that the main objective of the study isn’t loss and the correct demographic profile of the respondents is presented. The total number of questions has been limited to 10. The geographical coverage of the survey is restricted to Delhi and the NCR’s.

1. **Demography of Respondent**

FIGURE 9: Gender of the respondent

The above pie chart represents the Demographic profile of the respondents on the basis of Gender.

As represented in the above pie chart, fig 4.1, 57% of the respondents from the undertaken survey are MALES. That is, 112 of the 200 respondents are males.

Moreover, the remaining 88 of the 200 respondents were FEMALES, which accounted for 43% of the Target population. The male respondents could be further classified into consumer teenagers, young college graduates along with professionals and businessmen.

Similarly, the 43% of the female target population consisted of teenage consumers, high school pass outs along with female entrepreneurs, home-makers and the like.

1. **Is Tablet your Primary Computer?**

FIGURE 10: Tablet as your primary computer

As represented in fig 4.2, out of the 200 respondents who were a part of the primary survey, 29% of them do not have a Tablet as their primary computer. This implies that they own other devices like smart phones, laptops and computers, as the Primary Device.

In addition to the above, they may or may not own a Tablet.

As shown, the number of the purchasers with a Tablet as a primary computer is 64 of the 200 respondents. This mostly consists of teenage consumers or high school students who do not have access to the alternatives of a tablet.

Furthermore, 71% of the respondents are those who do not own a Tablet as a primary device. This implies that they have smart phones, laptops and PC’s as major devices.

136 of the 200 with other alternatives as primary devices are mainly, businessmen, prosumers (professionals) and so on.

1. **Which Brand of Tablet do you own?.**

FIGURE 11: Brand Preference in Tablets

As represented in figure majority of the sample size owns an Apple Ipad tablet. That is, 96 of the 200 persons surveyed, 48%(approximate) of the Tablet owners are owners of an Apple Ipad.

This is followed by Samsung Galaxy tab 10.1, with 60 of the 200 owning one. This amounts for 30% of the ownership of tablets.

Moreover, the remaining of the tablet ownership amongst the respondents is that of Blackberry playbook, Amazon Kindle Fire, Motorola Xoom followed by HP Touchpad, B & N Nook colors and thereby other tablets.

These,together amount for 52% of the ownership of Tablets other than that of an Apple Ipad.

**4 . What is your desired screensize for the Tablet?**

FIGURE 12: Screen Size Preference for Tablets

As represented in figure 4.5, 57% of the 200 respondents surveyed, prefer a 10 inch screen size for a tablet. This accounts for 114 of the 200 respondents.

Moreover, 33% of the sample population favours a 7 inch screen size for their tablet. The figure totals to 66 persons.

The remaining 10% of the sample population desires for a 5 inch screen sized tablet.

The data brings into focus the fact that majority of the sample population prefers a screen size of 10 inches for their tablets followed by those with preferences for a 7 inch Tablet.

**5. Which age group of Tablet owners do you fall into?**

FIGURE 13: Demographics of Tablet Users

As represented in fig 4.5, 43% of the sample population of 200 respondents, consists of users who are in the age group of 15-24 years followed by 33% of the population which is in the age group of 25-34 years.

The former accounts for around 84 of the 200 while the latter accounts for 64 of the 200 participants.

This is consistent with the fact that majority of the population of consumers of Tablets are primarily the young generation, that is, generation next.

As can be seen above, users in the age-group of 35-44 years account for 10% of the sample population. Moreover, a very known fact has become evident that the users of Tablets by those in their 40’s, 50’s is very less. Users in the age group of 45-65 together amount for 14% of the sample population of Tablet Users.

**6. Which section of Tablet owners do you belong to?**

FIGURE 14: Use-Based Segmentation of Tablet Users

As represented in figure 4.7, more than 50 % of the sample population belongs to Consumer section. As can be seen above, 56 % of the 200 respondents are Consumers accruing to 112 of the 200.

The consumers basically consist of the wide population of generation next users who are tech-savvy and who thrive on the IT industry and its innovations.

These include young high school students, graduates and to some extent even teenagers.

Moreover, the business and the prosumers (professional) together account for 44% of the sample population who own a tablet. As mentioned in the introduction above, many enterprises are making Tablets available to their employees comprising of professionals.

For these professional users or consumers, a term has been coined, “prosumers”. These prosumers account for 16% of the sample population, that is, 32 of the 200 respondents.

Lastly, business-related users account for 28% of the sample population, that is, 56 of the 200 respondents surveyed via the means of a primary undertaking.

**7. Average time spend using the Tablet per day**

FIGURE 15: Avg. Time spent on Tablet per day

As represented in fig 4.8, maximum respondents spend 1-2 hours per day on their tablets. The figure is 60 of the 200 respondents. This accounts for 30% of the sample population of tablet users, precisely.

This is followed by those users who spend 30 min to one hour working on their tablets. This accounts for 21% of the tablet users.

Furthermore, the sample also consists of those tablet users who spent more than 2 hours working on their tablets. This amounts to 76 of the 200 persons surveyed.

The remaining tablet users who spend less than 30 minutes working on their tablets together amount to 11 % of the tablet user population, that is, 32(less than 15 min)+ 56(15-30 min) of the 200 respondents.

**8.**  **Do you prefer Apple Ipad over other available Android Tablets in the market?.**

FIGURE 16: Preference of Ipad over other Tablets

As represented in the figure 4.8, 64% of the 200 respondents surveyed prefer an Apple Tablet in comparison to other available Tablets in the market.

This figure totals to 128 of the 200 respondents. The data is consistent with the widely held perception of the market regarding the dominant position of Apple in the Tablet Market.

Moreover, 21% of the sample population was consistent with their choice of Android Tablet rather than an Apple. This figure totalled to, close to 42 of the 200 samples.

Lastly, 30 of the 200 tablet respondents surveyed were indecisive despite having ownership to a Tablet of a particular brand. This figure amounted to 15% of the respondents surveyed from the sample population.

**9. Do you think the Touchscreen of Apple Ipad is better than that of the other available Android Tablets?.**

FIGURE 17: Touchscreen of Apple Ipad over other available Android Tablets

As represented in the figure 4.9, close to 61% of the respondents surveyed were of the opinion that the touch screen of an Apple Ipad was better than that of the other Android Tablets. This accounted for 122 respondents.

26% ,that is, 53 of the 200 respondents surveyed, who must be the owners of other Android devices were of the collective opinion that the touch screen of the apple Ipad is not better than that of others.

These users could collectively account to be users of a wide variety of Android Tablets ranging from Amazon Kindle Fire, Samsung Galaxy Tab to Blackberry Playbook or the Motorola Xoom.

Moreover, 13% of the respondents were indecisive, that is, had mixed views regarding this. This brings into focus the fact that the users are still not sure of the product that they are using and are in a dilemma regarding the key features and the like, of the product.

**10**. **What factors do you think are the most important for the success of Android Tablets?**

FIGURE 18: Factors for Sucess of Android

As represented in figure 4.10, more than 50% of the population (sample) is of the opinion that one of the top most factors responsible for the success of a tablet is the PRICE. This is very much evident in the figure above.

The second most important factor responsible for the success of tablets is MINIMIZED FRAGMENTATION. Fragmentation basically refers to a situation where in many custom versions of the software platform emerge and coexist with the original. Hence, the minimum this fragmentation, the better it is.

Approximately 50% of the respondents surveyed, are of the opinion that Minimized Fragmentation is another factor that plays an important role behind the success of Android Tablets.

**4.3 LIMITATIONS OF STUDY**

* The sample is restricted to the geographical limits of certain areas of Delhi and NCR’s.
* A sample of only 200 customers is taken to carry out the study. The sample is very small to draw important conclusions and is not a true representation of the 30 million plus population of the city of Delhi.
* The demographic profile of the respondents might not be the same as that of the target market. This might result in discrepancies.

**4.4 DATA ANALYSIS & FINDINGS**

* This project report was primarily about the stupendous growth of the Tablet Market in the last two years. The key focus of the report was to bring into notice the dominant position of the Apple Tablet with respect to other Android tablets.
* This was done via the comparative analysis of the Ipad and other Android operated devices like the Blackberry playbook, the Amazon Kindle Fire, the Samsung Galaxy Tab and so on.
* It brings into limelight the fact that Tablets are not only a threat to the PC Market, rather are fast replacing PC’s, netbooks as the primary form of computing device for a wide market out there, which is growing at a rather fact pace.
* Furthermore, the findings of the survey are consistent with the knowledge regarding Apple maintaining its dominant position in the nascent tablet market (which has shown and continues to show positive growth trends).
* That is, Apple is the leader in the near term, with the Market Fragmenting in the Medium and Long term. Apple’s iOS is the dominant tablet OS today, and will likely remain so in the near future.
* Unlike traditional PC’s, the Ipad’s platform integrates the hardware and software of the device, while Apple tightly controls the software that can be installed, requiring applications to be approved for download from the App world.
* This tight integration allows Apple to create a differentiated and rich user experience.
* New technology of any kind can raise questions of usability and health and safety concerns. The issue is particularly pertinent as business use of tablets increases, given companies responsibility for the occupational safety and health of their employees.
* Right from the start, tablet computers have attracted a very strong positive response from users. Not everyone however has always been entirely complimentary:
* For example, the problem of reading tablet screens in bright light was raised by the Financial Times technology writer Alan Cane, who complained of the potential problems of using tablets in the open air in bright sunlight. Rather more caustically, one cynical blogger commented shortly after the first Ipad launch: “Would love to know what percentage of Ipad users will get RSI [repetitive strain injury] and degraded eyesight in the next few years.”
* Because the display is so central to the experience of using a tablet (a tablet is, fundamentally, simply a display linked to processing power), the precise attributes of the display technology take on an especial significance.

**4.5 RECOMMENDATIONS**

* Most of the potential consumers own other devices like smart phones, laptops and computers, as the Primary Device. In addition to the above, they may or may not own a Tablet. Therefore there must be aggressive selling and advertising techniques in order to gain substantial share.
* Amongst tablet market, Apple is the most dominant and prominent brand used by consumers.
* Large screen size tables are most favoured for wider display and greater efficiency.
* Tablet pc’s are mostly adopted by the young population of Indian market thus the companies are required to target the youth segment in order to enhance their sale as it is demanded mostly by a particular age group.
* Apple is the most demanded tablet in market, thus other competitors are required to induce features which can take over the conventional mentality of people for choosing apple over the other brands present in market.
* Price is the most dominating factor in the buying behaviour of target customers. High cost becomes the factor for negative response in the purchase decisions. Thus the companies are required to lower the cost in order to enhance the interest of customers relatively.
* 7 inches tablets are increasingly gaining popularity (as seen with Samsung tab2 ). Apple must bring out a 7 inch competitor to remain market leader in this segment.

# **CHAPTER 5**

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# **CHAPTER 6**

# **APPENDIX**

**ANNEXURE**

**QUESTIONNAIRE SAMPLE**

1. GENDER:
* MALE
* FEMALE
1. Is Tablet your Primary Computer?
* YES
* NO
1. Which Brand of Tablet do you own?
* APPLE IPAD
* BLACKBERRY PLAYBOOK
* SAMSUNG GALAXY TAB 10.1
* AMAZON KINDLE FIRE
* MOTOROLA XOOM
* HP TOUCH PAD
* B & N NOOK COLOR
* OTHERS
1. What is your desired screen size for the Tablet?
* 10 inch
* 7 inch
* 5 inch
1. Which age group of Tablet owners do you fall into?
* 15-24 years
* 25-34 years
* 35-44 years
* 45-54 years
* 55-64 years
* 64 years and above
1. Which section of Tablet owners do you belong to?
* CONSUMER
* BUSINESS
* PROSUMER ( PROFESSIONAL)
1. Average time spend using the Tablet per day:
* Less than 15 min
* 15- 30 min
* 30- 60 min
* 60- 120 min
* 120 min and above
1. Do you prefer Apple Ipad over other available Android Tablets in the market?
* YES
* NO
1. Do you think that the touchscreen of the Apple Ipad is better than that of other available Android Tablets in the market?
* YES
* NO
1. What factors do you think are the most important for Android Tablets to succeed?

 (Rate on a scale of 1-5, 1 as worst and 5 as best)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  1 |  2 |  3 |  4 |  5 |
| PRICE |  |  |  |  |  |
| MINIMIZED FRAGMENTATION |  |  |  |  |  |
| HARDWARE CAPABLITIES |  |  |  |  |  |
| HONEYCOMB OS |  |  |  |  |  |
| NEW APPLICATION STORES |  |  |  |  |  |
| OEM ADOPTION  |  |  |  |  |  |

NOTE: The Questionnaire was primarily designed for Tablet Users\*.