

**A STUDY ON CONSUMERS USAGE BEHAVIOUR ON MOBILE APPLICATIONS**

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**Abstract:**

*The digital mobility is growing very fast and every day there are advancements happening in the digital world. The consumers all time keep their mobiles with them; they check their mobiles frequently, download things and explore their mobile phones. Mobile applications have become a big boon for the consumers as they have started using these applications to accomplish many tasks. The paper explores the usage behavior of consumers using mobile application that includes the perceived usefulness, the perceived ease of use in mobile application and to understand the behavior and intention of consumers on the usage of mobile application. The paper suggest that in-depth understanding on the importance of mobile application and the benefits it serves to the society and marketers. The findings from the research revealed that usage of mobile applications is much more than expected in daily usage of the consumers even though the limitations considered. It highlights the reason for mobile applications are increasing, gaining popularity and mobile applications have made the work faster due to its simplicity and ease of use.*

**Keywords :** Mobile Applications, Behavior Intention, Perceived Usefulness , Perceived Ease of Use.

**1.1 INTRODUCTION:**

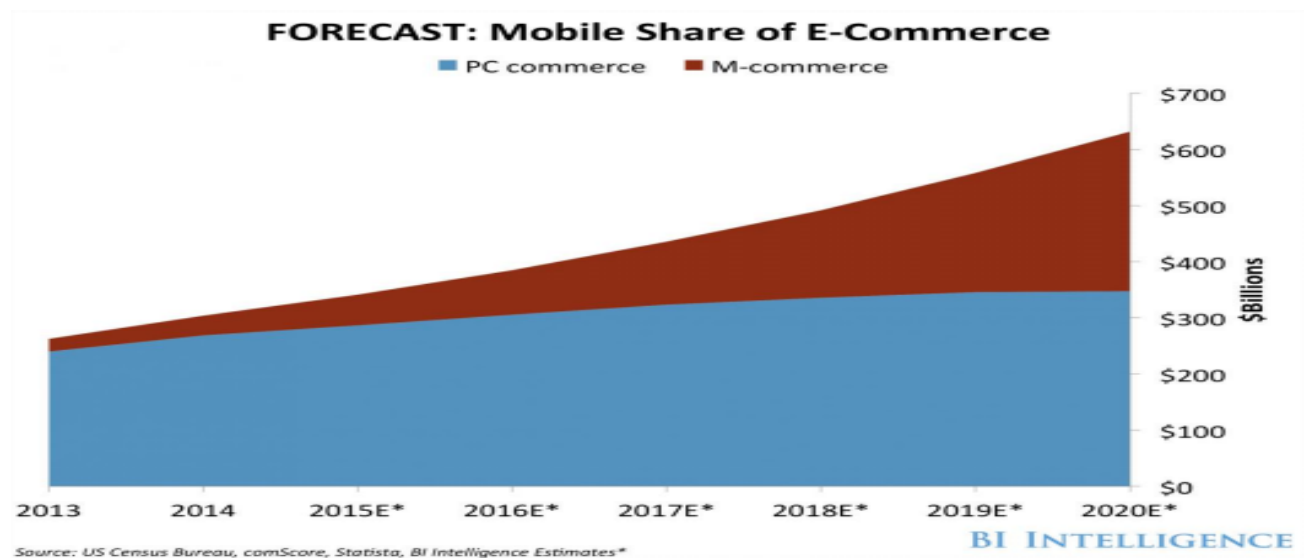
The recent research points out to the great struggle that the business face in making the users download the mobile application. The new research on mobile behavior highlights that almost 85 % of the consumers are spending their time on smartphones and using different applications to fulfill their personal need. Majority of the consumers use the mobile applications that have been downloaded from the app store like play store. There are certain people who spend more time on gaming and video where as there are certain people who spend their time on instant messaging or browsing products online.

While smartphone devices continue to increase their influence on the retail purchase process, whether the consumer is at home or in the store, mobile apps are still struggling to gain their footing. In fact, only 30% of consumers are using retailer apps to actually purchase products at any point, according to research from Forrester Research. A recent study conducted by **Nielsen** that was released in **June 2015** that there isn't any limit to the use of mobile applications and that consumers use 26 to 27 applications per month. This new study conducted by forester research examines the different applications and in which people spend most of their time.

As we know mobile applications are software applications that are developed specifically for the use of mobiles and other wireless computing devices. Mobile applications can be used in wireless computing devices such as smart phones and tablets, these mobile applications that are used in smart phones is better than the use of desktop and laptop computers. Mobile applications have become the easy mode of doing things by just a click away and don't need one to switch on the desktop or laptop. The mobile apps have made the consumers life easier as the applications offer all types of facilities right at their fingers (**Sarah Perez, 2015**). The mobile apps can be used for variety of purpose like banking, paying up bills, shopping, reserving hotels, travel booking etc. These advancements in technology have given consumers an easy approach to various products and information on store as well as a greater capability of communicating in real time.

#### 1.1.1 M-commerce in Future :

In 2020, m-commerce will increase 45 percent in the overall of E-commerce states by Business Intelligence report, that equals \$284 billion in sales. Its more than expected by the marketers in the year 2016.



**Figure 1:** Mobile share of E-commerce, **Source:** BI intelligence

In 2016, the increase in M-commerce usage will be driven by a few things that consumers use their smart phone as their primary device by making more and they spend time more. The retailers also make people to involve and create opportunities for their shopping.

#### 1.1.2 Retailers eye on Mobile App:

The leaders in the retail with the biggest achieve like Flipkart, snapdeal, Amazon have been able to get adequate regular usage on their mobile applications in turn to outpace their passage and purchases on the mobile website. According to the study Moovweb, mobile apps are focus than the mobile websites in a mobile optimization platform. The retailers are thinking and want their application icon on users screen. Most of the retailers climbed up to the app stores in the year 2015. The top shopping e-portal shutdown their website and moved on to mobile applicaton only.

### 1.1.3 Categories of Mobile application:

A mobile application consists of software that is created by a set of program that runs on a mobile device and performs certain task for the users. Mobile application is a fast developing, it is user friendly, not expensive, can be downloaded and can run in any mobile device. There are a variety of categories in which the mobile application can run and has a wide use of functioning in areas such as messaging, calling, browsing, chatting, and listening to audio, video and playing games. It could find that large number of applications and important applications come preinstalled in the mobile Consumers use Internet Browsing, social networking sites and messenger services for communication. Consumers use Puzzle, Casinos, Adventures application for games where as video player, audio player, presentation viewers are used for multimedia. The other applications are listed category wise in Table 1.

Android Wear	Finance	Medical
Books and Reference	Games	Music & Audio
Business	Google Cast	News & Magazines
Comics	Health & Fitness	Personalization
Communication	Libraries & Demo	Photography
Education	Lifestyle	Productivity
Entertainment	Live Wallpaper	Shopping
Family	Media & Video	Social
Sports	Tools	Transport
Travel & Local	Weather	Widgets

**Table 1: Category of Mobile applications Source: The Authors**

### 1.1.4 Consumer Expectations:

According to Mobile application survey report the requirement of the Consumers in mobile applications are listed. The consumers look for easy access to the product, and easy planning navigation steps and ability to easily communication. The consumers expect from the applications to deliver key functions through an spontaneous and entertaining interface. They expect the application to identify the device they are currently give them the right set options and functions for that specific device. Consumers need applications that are proactive and relevant for them with the information and services that are within the context of their area at a given time.

The applications need to remove the personalized content as well as the discounts and perks that are based on the consumer's interests; it should also provide the share offers, news about the products on social networking sites. The most important thing here is that the disadvantages and bad experiences can also be shared. This is the most important reason for applications to perform at a higher level. Applications have begun to make consumers life easier by doing things such as streamlining our calendars and grocery lists, providing entertainment and making it easy to collaborate with colleagues and friends. Consumers have also collaborated the applications with productivity. Consumers pay bills, shop, book hotel, book tickets, make travel plans etc through the easy usage of mobile applications

## 1.2 REVIEW OF LITERATURE :

Mobile applications defined as any transactions with a monetary value implemented via wireless telecommunication network **(Ko, Kim, & Lee, 2009)**. That can able to do the transactions and share informations that the applications can be downloaded from the app store from the Smartphones. Most of the transactions involved shopping, booking tickets, banking, trading and so on. With the mobile applications, consumers can use less expensive technologies than desktop or laptop computers like Smartphone's, tablets, ipods. The consumers spend more time on mobile applications which actually exceeds the time that they spend on web browsing. The mobile applications are more attractive to the consumers as it gives information to the consumers on variety of things. The social networking sites like facebook and whatsapp have been growing dramatically allowing people to get information on instantly. The consumers are able to get information on anything then and there as the news spread virally through the social networking sites. The advantages as well as disadvantages of a product is shared, hence the consumer is clearly aware about the products before approaching them. This is one of the reasons that make the applications perform at the highest level. **(Ko, Kim & Lee, 2009)**The study focused on investing consumer behavior in adopting mobile applications in Johannesburg RSA. The facts increasingly imply that firms using mobile applications have a competitive improvement in creating business opportunities in the marketplace. **(Chai-Lee Goi and Poh- Yen Ng, 2011)** To explore on mobile applications, perception on young consumers in malaysia. The findings revealed that perception of consumers seems to be positive especially on emergency, content delivery, communication, transaction and entertainment. And there is requirement for service providers to satisfy the needs and better services for the consumers. Due to an increasing internet and m-commerce presence , it was projected by **(Gartner,2011)**, an information technology research company, that companies will make 50% of their web sales through their social presence and mobile applications by 2016. Therefore, knowing which attributes of mobile applications are most significant for the retailers, that consumers will be very important to business who want to capitalize on this service.

**(Gath Andrew Balabanoff, 2014)** The study suggest that the attitude and perceived behavioural control and subjective norms have an intention to adopt mobile applications. A data on the usage of apps have been given by the forester research study that used 2,000 US smartphone users to analyse the consumers engage with the applications that they have on their mobiles. As per the findings the research found that communication and social applications account for the most usage by the consumers **(Sarah Perez, 2015)**. Here from this report we understand that most of the time consumers are texting through mobile applications, buying products through mobile applications and the entire communication is through the mobile applications.

## 1.3 USABILITY OF MOBILE APPLICATIONS:

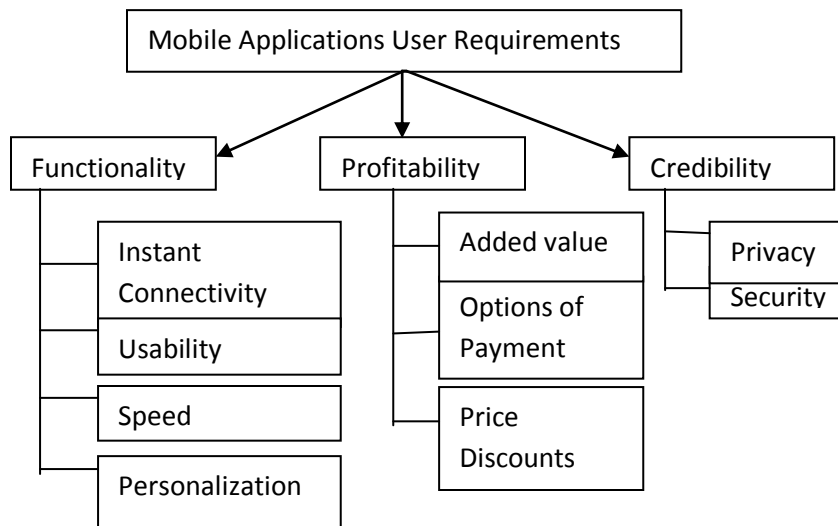
Mobile applications are becoming an increasingly important element for the total market plan of the business as the consumers are looking for ease of use, convenient usage and immediate outcome when they are on the move with their busy lifestyle.

There are five different spheres of usability of mobile applications suggested by **(Nielsen 2015)** Firstly known efficiency in which users accomplish their goal with accuracy on what they are doing. Secondly, the sense of satisfaction and comfort for the users while using the application. This sense of satisfaction gives the users a positive attitude towards the product. Thirdly the importance of learn ability wherein the system that they use should be easy to be trained and the users can do the

work much more rapidly. Fourthly, the author stressed on the importance of memory skill in which the user is able to keep in mind the system much easier, so that they need not to learn the entire process again. Finally there should be negligible errors that happen in the application and it should be the case that if the users do errors, it should be easily rectified.

The International Organization for Standardization (**ISO, 1997**) defines usability as “The extent to which a product can be used by particular users to achieve specified goals with efficiency, effectiveness and satisfaction in a particular context of use”. According to this definition, the usability of the application depends on the user attributes have been identified and these attributes need to be meet their particular level of context to use. These factors should be considered when evaluating the usability of a particular system or application.

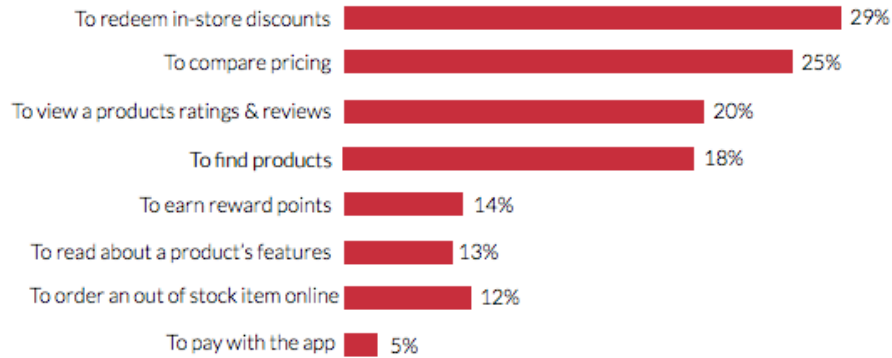
The Figure 2 explains the User requirements of mobile applications, the user getting an intention to use the particular B2C applications by the following requirements. Mobile applications can be used anytime and anywhere, functionality wise it should be instant connectivity, usability, the speed should not be compromised by the user, and the major benefit factor lies in the functionality is personalization factor. The profitability wise it should be m-commerce has the options of payment, user can use credit cards, debit cards, net banking for the payment options. The user expecting price discounts, it proven that most of the e-portals offering discounts in the mobile applications than the online websites. In credibility, the mobile applications are more privacy, ability to control another person in the environment. The Theory of Reasoned Action explains the relationship between user security and user satisfaction (**Fishbein, Ajzen, 1975**).



**Figure 2 :** Mobile Applications User Requirements, **Source :** Author

The figure 3 explains mobile applications are not only used to the consumers out of the store, they also using the apps when they are in retail or any other kind of stores too. The reasons behind is to view the discounts offer for the products they are going to purchase. To compare prices and to view ratings and reviews mobile applications also used. Sometimes apps are helpful to order and check items that out of stock in store.

### Top Reasons for Using Apps In-Store



**Figure 3: Top Reasons for Using Apps in Store, Source: The being Apptentive blog**

#### 1.4 BENEFITS OF MOBILE APPLICATIONS:

##### For Consumers

For the past few years all the mobile companies are developing new smart phones with increase in the number of features. These days most of the people can never thing about leaving their homes without their mobiles, the rate is grown steadily in India and most of the people always carry their mobile phones for easy accessibility of applications. There are quite a lot of benefits by using the mobile application. The mobile applications are used in different areas and one of the major areas is communication. Communication is done through applications like voice chat, face book, twitter etc. These days if you check anybody's mobile you will find applications like facebook, whatsapp, twitter etc. these are applications that are predominantly used by the consumers to fulfill their needs. These applications make it easy for the users to relate easily with their family, friends. Messenger is an application that is developed for the purpose of chatting and able to chat with a person from any part of the world. Then, the GPS system which plays an important role in tracking location and Google map that enables us to find our location. The GPS system enables road navigation and Vehicle tracking is made possible (Rasheed Islam et.al, 2010).

The usage of mobile commerce enables us to view various products sold on the net, helps us to view the details of the products and eventually select and buy the product online. The other major benefit is that business can be done through the use of applications, it is a known fact that many businesses these days run through mobile applications like mobile banking, shopping, ticketing etc. Mobile applications are also used with the support of internet connection in controlling our home Pc's from different location. Consumers are able to watch videos and listen to songs directly with the help of mobile application youtube. Kids are able to play games in the mobiles using the gaming applications that is downloaded from android applications, iphone etc.

**Benefits for Marketers:**

The best tactic is to create a plan of the accurate benefits and features want in an app, then will have a better understanding of results. Simple database collection and lead generation and Opportunity to offer discounts and coupons through mobile applications .An Ability to send push notifications through the applications for consumers . The capabilities, QR code options, podcasts, Youtube channel and voice message recording capabilities enable to contact consumers. Mobile application publisher, distributor and service provider are getting large revenue by providing ads as a part of mobile application.

The advantage of advertising in mobile application depends on the popularity of application and uses frequency of that application (**Diogo Caldeira Pires, 2009**).

There are many mobile applications by which the service providers earn lots money every month. For example whatsapp, Facebook, Twitter, youtube, Skype and etc. All over the world many people using these software and the providers are earning the revenue. There are many companies all over the world doing business through Mobile applications general user getting facilities.

**1.5 LIMITATIONS OF MOBILE APPLICATIONS:**

In Smartphone, the maximum internal memory space is very limited. Since the mobile devices are limited then the amount of storage and size of the products screen compared to personal computer, there are limitations of using the applications. The small display screen and excess of data storage may hang the device. So the limitations for the application downloaded of the consumer will also depend the memory space. In applications, the hurry information overload is one of the irritating thing in mobile applications. Many people will not pay an attention to bulletin board advertising. These kind of ads makes the device full of spam. When downloading the applications, users almost certainly have to allow the publishers to track and explore their actions. This would give confinement to abuse of personal information. And more over, there is a chance of virus getting downloaded in their Smartphone's without being aware of it.

**For Marketers:**

For the marketers, the cost of developing and marketing the applications is the most difficult and major job. The cost of spending on developing applications is high for superior quality of the application. In the market, millions of mobile apps are existing. Marketers spend huge time to develop the applications and financial cost is also matters to stand out from fierce competition. Moreover, costs on developing applications is higher than the profits they earn. So, there also some disadvantages exists in the mobile applications (**Nicole Bae, 2013**). Figure 4 implies that card abandonment rate is increasing day by day because of page loading takes time. In 2015, Mobile commerce conversion sales accounted for 29 percent of overall e-commerce. In spite of this, many online retailers have yet to master the art and science of mobile commerce conversion. Online retailers try a number of campaigns and tactics to improve mobile commerce conversion rates, but few things will be more productive than boosting page load times, providing a better mobile checkout experience, including continuous scrolling on product category pages, featuring product videos on product detail pages, and marketing specifically to mobile shoppers. E-commerce websites are fast loading than the mobile applications. Mobile shoppers are impatient for waiting to page load times. The typical mobile application user has to wait 6-to-10 seconds for a page to load. According to kissmetrics, if the page load time decrease to one second will increase seven percent conversion

rates. This page load times also impacts the card abandonment rate. According to the published reports, when checkout page takes just 4 seconds to load, cart abandonment rate reaches to twenty five percent.

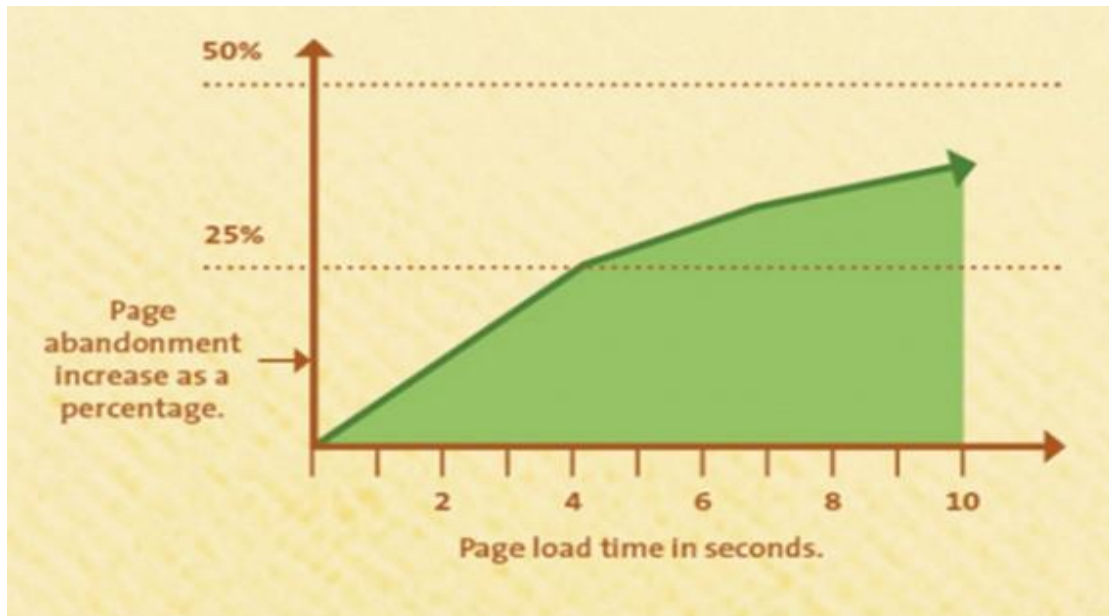
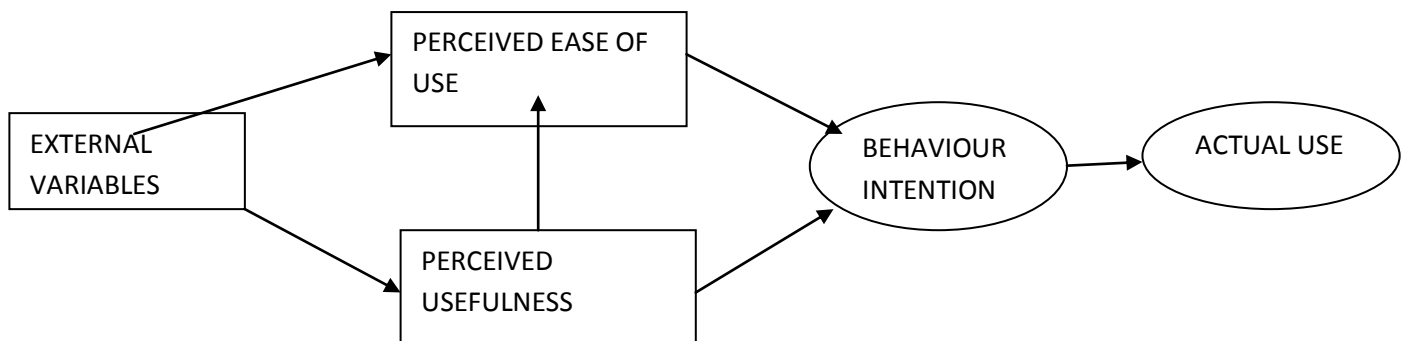


Figure 4: Mobile card abandonment Source: Armando Roggio, 2016

## 1.6 THEORETICAL FRAMEWORK:

### Technology Acceptance Model (TAM):

The Technology Acceptance Model that was suggested by (Davis, 1989) was taken from the Theory of Reasoned Action. The theory of Reasoned Action is a theory that explains the general human behavior; TAM is focused on information system usage. TAM was basically created to understand the causal link which exists between external variables and user acceptance of the Personal computer based application. TAM has been used widely as theoretical framework in recent times to explain technology of acceptance which includes the internet and World Wide Web (Moon and Kim, 2001; Gillenson and Sherrell, 2002; Koufaris, 2002).





**Figure 5: Technology Acceptance Model (TAM)**

Figure 5 explains the constructs that has perceived usefulness and perceived ease of use are two phenomena that forms the basis of TAM. Perceived Usefulness is the degree to which a person believes that using a particular system that has mobile applications would improve job performance. While perceived ease of use means that the person has belief that using a particular technology that has mobile applications would be free of efforts. Perceived usefulness and perceived ease of use will show us the beliefs about the value of task and user friendly of mobile applications respectively. The model points out that the actual usage is being determined by user's behavioral intention to use the applications. It is influenced by their attitude and the beliefs of perceived usefulness. The users attitude that is reflected by positive or negative feelings on using the application is greatly determined by perceived usefulness and perceived ease of use in which perceived usefulness in turn is being influenced by perceived ease of use and external variables. The external variables could cover training, system design features, documentation and user support. The logic inborn in the TAM is that easier mastery of the technology, the more helpful it is being perceived to be, which finally leads to more positive attitude and greater intention towards using the technology and ensuring greater usage of the mobile applications.

**1.7 FINDINGS AND CONCLUSIONS:**

The research focused on the usage behavior of the mobile applications. The study gave a deep insight into the usage of mobile application and its benefits to the consumers and marketers. The consumers are more inclined to the use of mobile applications because of the perceived usefulness of mobile applications and perceived ease of use in mobile applications. The study suggest clear understanding on the advantages and the various categories of mobile applications. The author explains the reason for mobile applications that has bettered the use of desktop and laptop. The feasibility of mobile applications are far much more better than using a laptop as the usage of mobile applications is done with just a click away at anytime at any place.

The need for the technology to suffice the requirements of the consumers and the research focuses on the different applications that consumers use all the time. The identified the five aspects of usability which includes the easability of use, convenience, satisfaction level and comfort in handling the technology. Usability is considered as the ability of a consumer to use the technology in a more convenient way rather than facing difficulties at the time of usage.

The TAM model that explains the actual usage of mobile applications and the importance of perceived ease of use and perceived usefulness as the main variables that triggers the behavior intention among the consumers towards the definite practice of mobile applications. Here the model clearly portrays that based on the perceived usefulness and perceived ease of use the technology is more adaptable for the consumers and this creates an intention to use it.

After all the limitation of mobile applications, the uses and attractiveness of mobile application are growing day by day. Most of the people are trying to use mobile device and mobile applications instead of desktop for easy task. The quality and functionality of the mobile applications are increasing according to the user needs and desires. So the Smart mobile applications are more capable and useful to the user and globally this was accepted. This paper will helpful for the marketers to improve their marketing strategy in mobile applications and the importance of them.

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