

# INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS & MANAGEMENT

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**JOURNAL AND OTHER ARTICLES**

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**A STUDY ON CUSTOMER MOBILE APPLICATIONS USAGE PATTERN AND THEIR SATISFACTION****ABDULKHADAR J. MAKANDAR****STUDENT****DEPARTMENT OF MANAGEMENT STUDIES****BASAVESHWAR ENGINEERING COLLEGE (AUTONOMOUS)****VIDYAGIRI****SANJAY HANJI****ASSOCIATE PROFESSOR****DEPARTMENT OF MANAGEMENT STUDIES****BASAVESHWAR ENGINEERING COLLEGE (AUTONOMOUS)****VIDYAGIRI****BRIJMOHAN VYAS****ASST. PROFESSOR****DEPARTMENT OF MANAGEMENT STUDIES****BASAVESHWAR ENGINEERING COLLEGE (AUTONOMOUS)****VIDYAGIRI****DR. M. M. MUNSHI****ASSOCIATE PROFESSOR****DEPARTMENT OF PG STUDIES IN BUSINESS ADMINISTRATION & RESEARCH****VISVESVARAYA TECHNOLOGICAL UNIVERSITY****MACHE****ABSTRACT**

A Mobile application (or mobile app) is a software application designed to run on Smartphone, tablet computers and other mobile devices. They are usually available through application distribution platforms, which are typically operated by the owner of the mobile operating system, such as the Apple App Store, Google Play, Windows Phone Store, and BlackBerry App World. Some apps are free, while others must be bought. Usually, they are downloaded from the platform to a target devices i.e. mobiles, such as i-phones, android phones or windows phones, but sometimes they can be downloaded to laptops or desktops. Advances in Smartphone technology have enabled the prevalence of mobile applications. Such a variety of mobile applications make the Smartphone more interesting and more humanized, and running these applications has become the major function of Smartphones. The popularity of mobile applications has continued to rise, as their usage has become increasingly prevalent across mobile phone users. However, the most challenging task for companies and researchers is to know and predict mobile user's application usage patterns and tastes which is very important for improving Smartphone performance. Hence this research is undertaken to know the customer usage patterns and preferences of mobile apps. The results are discussed and conclusion is drawn.

**KEYWORDS**

Mobile APPS, Customer Usage Patterns, Satisfaction, Smart phones.

**1. INTRODUCTION**

The term "app" has become popular, and in 2010 was listed as "Word of the Year" by the American Dialect Society. In 2009, technology columnist David Pogue said that newer Smartphone could be nicknamed "app phones" to distinguish them from earlier less-sophisticated Smartphone.

Mobile apps were originally offered for general productivity and information retrieval, including email, calendar, contacts, and stock market and weather information. However, public demand and the availability of developer tools drove rapid expansion into other categories, such as mobile games, factory automation, GPS and location-based services, banking, order-tracking, and ticket purchases. The explosion in number and variety of apps made discovery a challenge, which in turn led to the creation of a wide range of review, recommendation, and duration sources, including blogs, magazines, and dedicated online app-discovery services.

The popularity of mobile applications has continued to rise, as their usage has become increasingly prevalent across mobile phone users. A May 2012 comscore study reported that during the previous quarter, more mobile subscribers used apps than browsed the web on their devices: 51.1% vs. 49.8% respectively.

Advances in Smartphone technology have enabled the prevalence of mobile applications. Such a variety of mobile applications make the Smartphone more interesting and more humanized, and running these applications has become the major function of Smartphones. However, the limited resource of current Smartphone requires both researchers and companies paying more attention to the way of effectively managing mobile applications. **A challenging task is how to predict mobile user's application usage patterns for improving Smartphone performance.** Although the usage patterns can be treated as the time series prediction problem, traditional time series models are usually too complex to be directly adopted by the Smartphone environment.

**1.1 USAGE PATTERN**

Consumption is simply defined as the total demand for all consumer goods and services. Consumption as the spending by households on goods and services such as clothing, food items, entertainment, health services and acquisition of assets among others. (Anyanwu (1995) and Frank and Bernanke (2001))

**1.2 CUSTOMER SATISFACTION**

In general, satisfaction is a person's feelings of pleasure or disappointment that result from comparing a product's perceived performance (or outcome) to expectations. If the performance falls short of expectations, the customer is dissatisfied. If performance matches expectations, the customer is satisfied (Philip Kotler and Kevin Lane Keller)

1.3 APPS

A mobile application, most commonly referred to as an app, is a type of application software designed to run on a mobile device, such as a Smartphone or tablet computer. Mobile applications frequently serve to provide users with similar services to those accessed on PCs. Apps are generally small, individual software units with limited function. (Technopedia).<sup>[1]</sup>

1.4 SMARTPHONE

A **Smartphone**, or **Smartphone**, is a mobile phone built on a mobile operating system, with more advanced computing capability and connectivity than a feature phone. (Wikipedia)<sup>[2]</sup>

There are 67 Million Customers are using Smartphone's in Indian Territory.

2. LITERATURE REVIEW

Harrison R. (PACMAD) The Usage of the mobile application is depends upon three aspects like Effectiveness, Efficiency, and Satisfaction Level of the Customer. Dawson J. (2011)<sup>[3]</sup>

Applications are created to basically provide a person the ability to have everything they need in the palm of their hand. Sutanto J., Gasimove, Anar (2011) The development of mobile applications is characterized by three factors: 1) The maturity of the mobile network infrastructures, 2) advanced mobile hardware, and 3) increasing demand for mobile applications/services.<sup>[4]</sup>

Muchmore M, Yin S, Colon A, (July 16-2012): Apps are the part of our culture with widespread use in both personal and public spheres.

Times of India Mobile app numbers have a jarring note (May 5, 2011): According to ABI Research: Estimates that 44 billion mobile apps would be downloaded by 2016. This might seem enormous – 8 billion mobile apps were downloaded in 2010.

Times of India "Facebook India's mobile user base swells to 62 million" (August 14 2013): The California-based firm reported a healthy growth of 5 % in its monthly active users (MAUs) in India to 82 million as of June 3 0, 2 01 3 from 7 8 million in June 3 0, 2 01 2 . "As of June 3 0, 2 01 3, 62 million people in India accessed Facebook through their mobile phones. It has 82 million MAUs in India and the firm believes that the next billion users are going to come through mobile," Facebook India Country Growth Manager Kev in D'Souza told PTI. Globally, mobile MAUs raise by 51 %, 81 9 million as of June 3 0, 2 01 3 from 543 million as of June 3 0, 2 01 2 , the company said while presenting its quarterly results.<sup>[5]</sup>

Times of India, "Free apps to account for over 80% download in 2012" (Sept 11 2012): Free apps will account for 89% of total downloads in 2012, according to Gartner. Worldwide mobile app store downloads will surpass 45.6 billion in 2 01 2 , with free downloads accounting for 40.1 billion, and paid-for downloads totalling 5 billion. "In term s of the apps that consumers are buying, 90 percent of the paid-for downloads cost less than \$3 each," said Sandy Shen, research director at Gartner.<sup>[6]</sup>

Mary Meeker (Sept 10 2013): India ranks fifth among the top countries for Smartphone users with an estimated 67 million subscribers in 2013, behind China, the US, Japan and Brazil.<sup>[7]</sup>

3. STATEMENT OF THE PROBLEM

According to the literature review, it is seen that mobile apps market is growing at a faster rate. Apps and Smart phone companies are making lot of effort in understanding the customer preferences of apps and their usage patterns. However, much research has not been carried out in this area. Hence this research makes an attempt to discover the customer preferences of apps and their usage patterns.

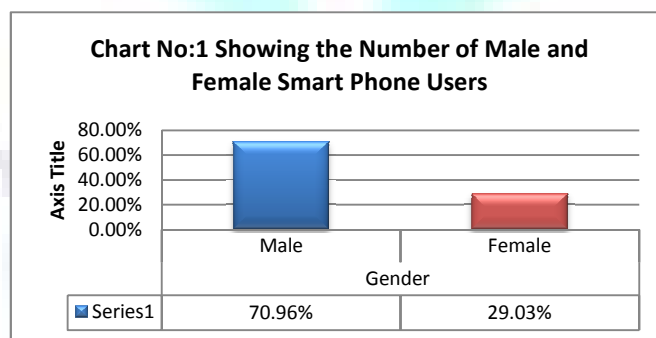
4. OBJECTIVES OF THE STUDY

1. To understand the customer preferences and usage patterns of different types of apps based on different demographics, operations systems etc.
2. To study the customer satisfaction level towards apps they currently using.

5. RESEARCH METHODOLOGY

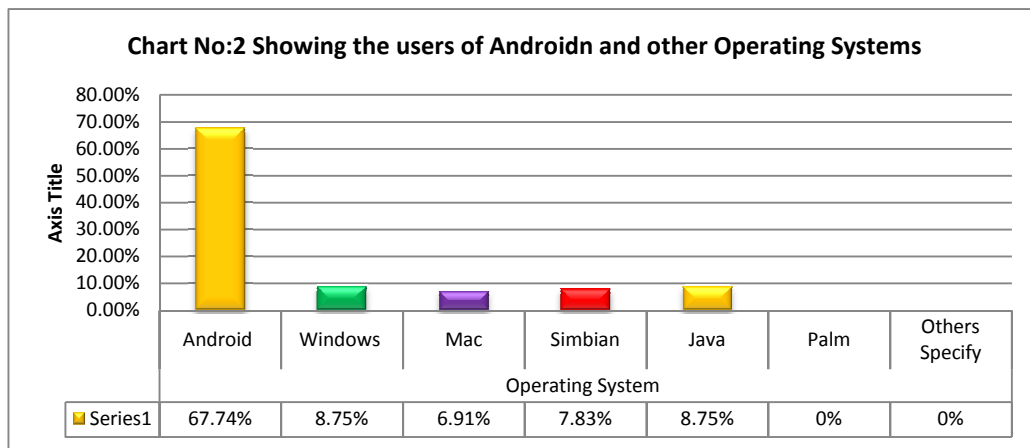
This research has adopted both exploratory and descriptive research designs. In exploratory research many focus groups and depth interviews were conducted among various demographics to understand the insights of apps usage patterns and their tastes and preferences. Based on the ideas generated during exploratory research the descriptive research design was finalised. A well structured questionnaire was developed for the same and data was collected. The research has been conducted in north Karnataka region, India. The sample units chosen were all smart phone users and the sample size to which questionnaires were administered was 250 out of which 217 respondents only responded. Hence the response rate is 86.8%.

6. RESULT AND DISCUSSION

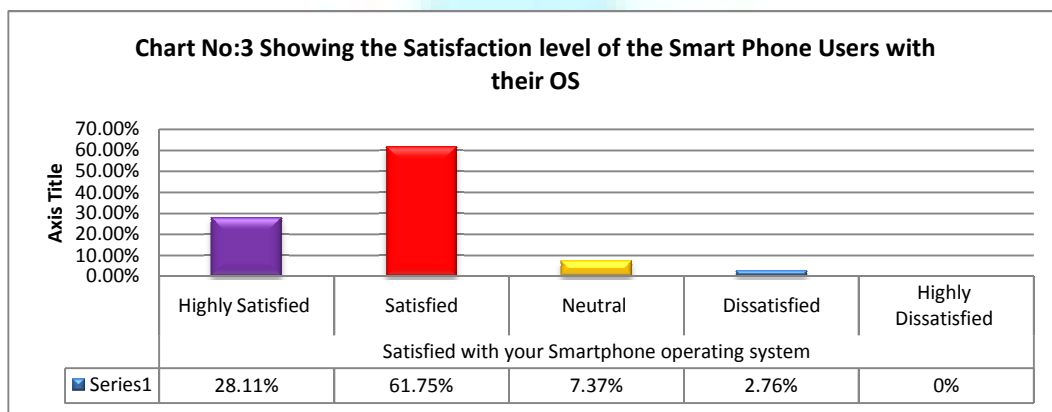


From chart 1, it is seen that 70.96% of Male and 29.03% of Female users are there of Smartphones. This analysis is limited only to the sample but it gives clear picture that there are less female Smartphone users when compared to make users. This difference is might be because many women are households and they don't go out for work and this is why many women in smaller towns don't use Smartphones. But when it comes to men they have a great tendency to use Smartphone. It is a kind to status symbol of most men to have a smart phone here in this region.

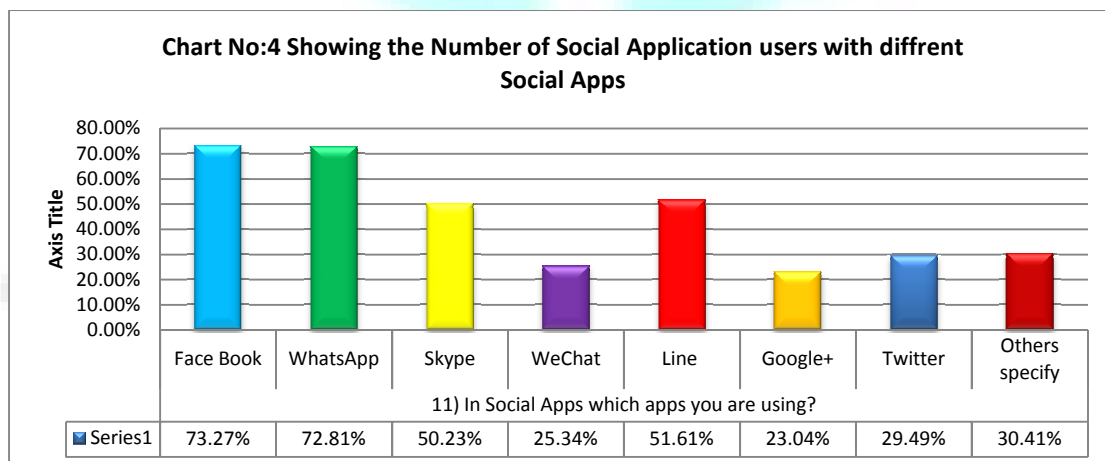




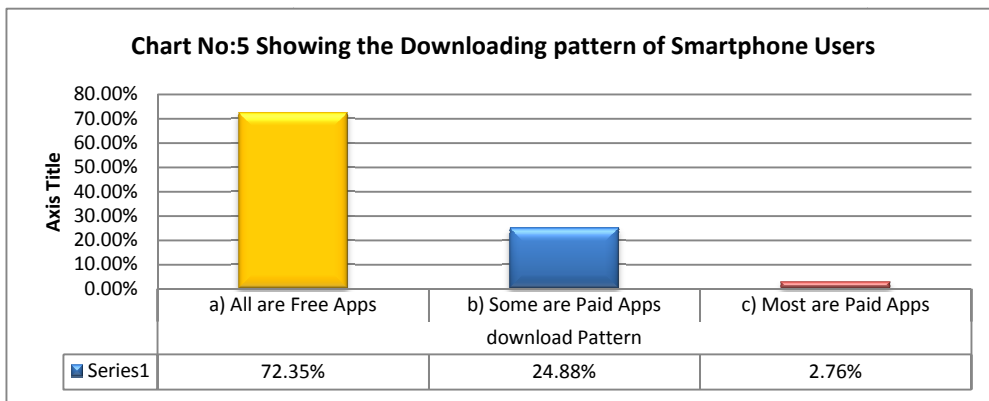
From chart 2, it is seen that The in total respondents, 67.74% of Smartphone Respondents prefer Android OS, 8.75% prefer Windows OS, 6.91% Prefer MAC or Apple as their OS, most of the respondents prefer the Android as Operating System as compare with other Operating System because Android have free Applications, the Android Operating System is User friendly and Android supports all the Applicattem are High End Operating System, Simbian and Java OS are older version of the trend.



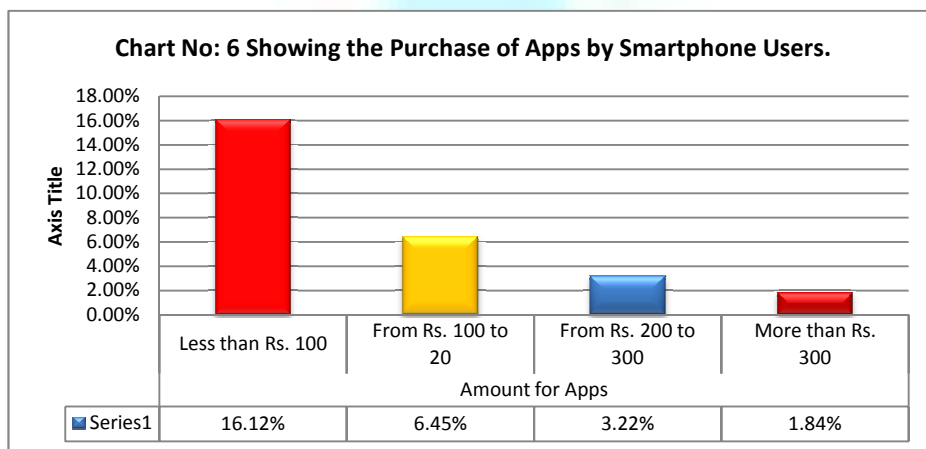
From chart 3, it can be observed that, in total respondents, 61.75% of respondents satisfied with their Operating Systems, 28.11% of respondents are highly satisfied, 7.37% said neither satisfied nor dissatisfied and remaining 2.76% said they are dissatisfied with their OS. most of the respondents are satisfied with their Smartphone OS because they get different apps which are easily downloaded and uploaded in the OS. The Smartphone helps to used to all the apps within a short time and these can be stored and used as per our requirement and only few respondents say they are dissatisfied from their smart phone because their OS is somewhat difficult to use and some important Apps will not run on their specifications.



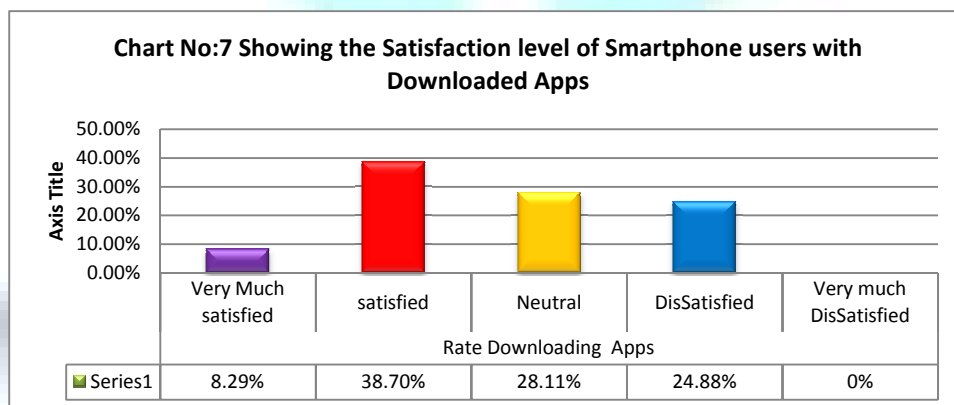
From chart 4, it is seen that, when compared to all social apps 73.27% of the respondents use facebook App and 72.81% of the respondents use what's app, 50.23%of the respondents use Skype app and further 51.61% use line app, 25% use WeChat remaining 23.04% use Google+ app in their smart phones. Most of the respondents use facebook app because now a day's respondents use facebook as a social Apps rather than website and this Apps is not only youngsters but the middle aged respondents also use the facebook so, it has become one of the basic app of the mobile. Majority of the respondents use the What's up App and Skype because most the respondents use these sites as a communication media where they find their friends easily and share anything they want it may be Text, Media File etc.. This makes respondents to attract towards them.



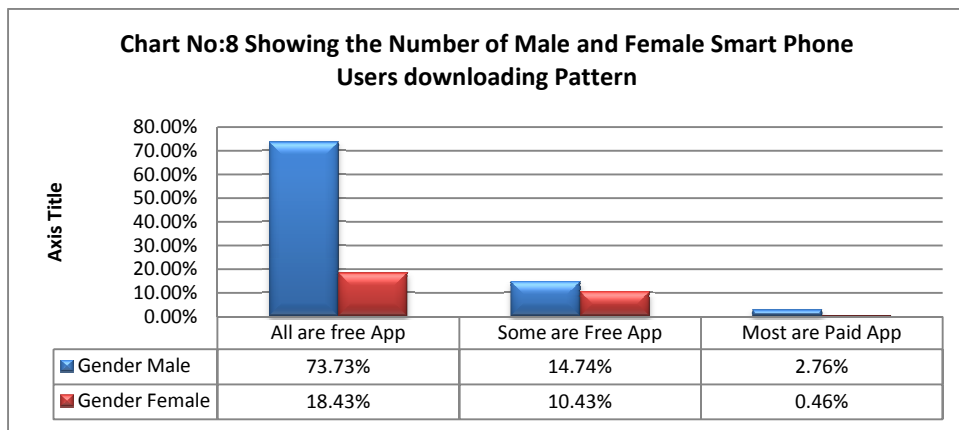
From chart 5, it is understood that, in total respondents, 72.35% of the respondents use only free Apps in their Smartphones, 24.88 % respondents are used combination of paid and free Apps and remaining 2.76% of respondents use only paid Apps. Most of the respondents use only free apps because they don't wanted to purchase the Apps while they are getting in All in free what they need, further 24.88% of respondents are usually download the free Apps as well as paid Apps because some Important Apps will not provide for Free Access, where as remaining very less percentage of respondents use only paid apps because their OS is not providing them the Free Apps usage so they go for free Apps.



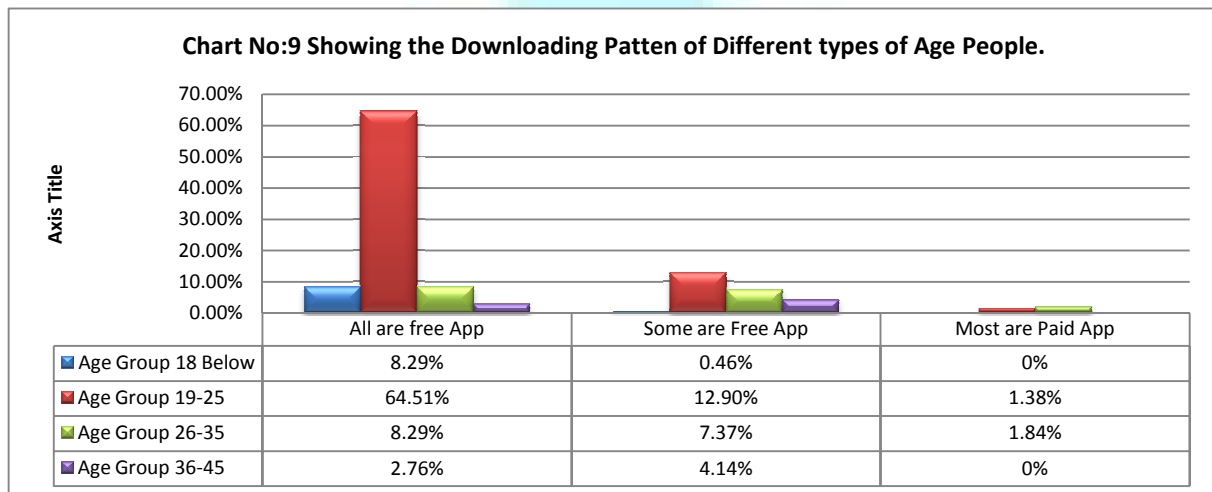
From chart 6, it is seen that, In total respondents 16.12% of respondents spend less than 100 rupees to purchase the Apps, 6.45% of respondents spend between 100 to 200 rupees further 3.22% of respondents spend between 200 to 300 rupees and remaining 1.84% of respondents says they spend more than 300 rupees for the purchase of Apps. The Apps also going to purchase by the respondents because the respondents are wanted to use the premium version of the mobile Apps, that they completes task, so they can get satisfaction.



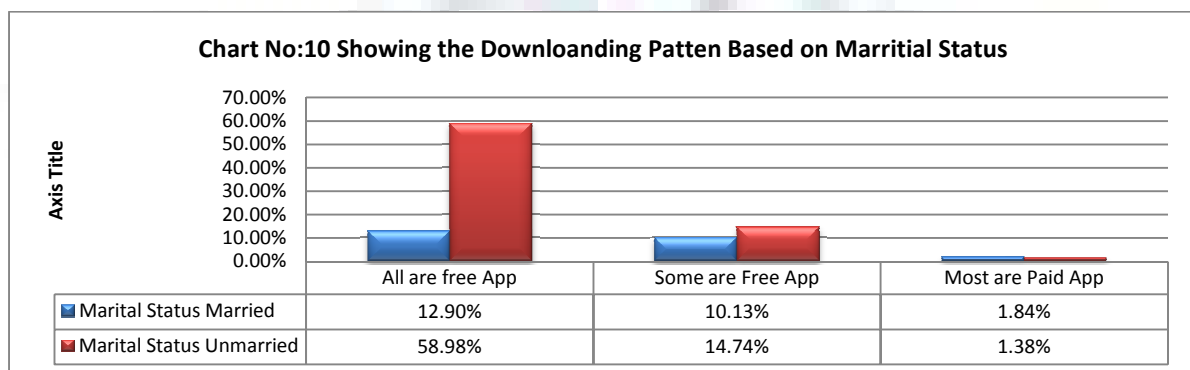
From chart 7, it is seen that in total respondents of downloading Apps, 38.70% of them are satisfied, where as 28.11% of are neither satisfied nor dissatisfied, 24.88% of are Dissatisfied and remaining 8.29% of very much satisfied with the performance of overall Downloading of Apps. In total respondents of downloading of Applications, most of them are satisfied followed by some of them are neither satisfied nor dissatisfied and remaining are dissatisfied apart from this some are very much satisfied with the Downloading of Mobile Applications. Because most of the download are happen based on the usage, outcome of the Apps and the satisfaction level of the Users.



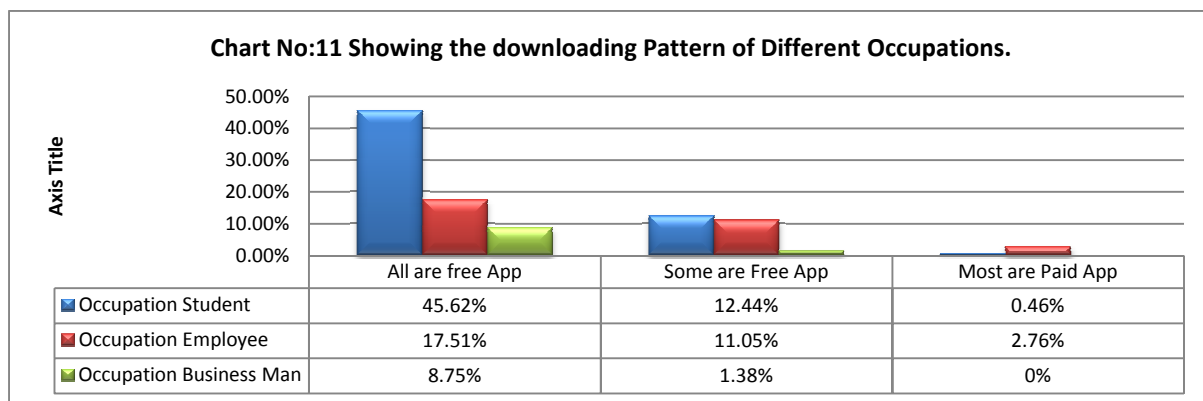
From chart 8, it is seen that the downloading patterns of Applications are differ from each other based on Gender. The 92.16% of Apps Downloads are free in nature with a combination of male (73.73%) and Female (18.43%), 25.17% respondents are mixture of Paid and Free apps and 3.22% of Respondents are using lots of paid apps only. In total responders there will be more no. of Male's (71.23%) % Female (29.32%) are there. In Downloading of Application the most of the respondents are male (71.32%) and females (29.32%) are less in no. Where the Most of Male responders are download the Free apps only (73.73%) and Female's (18.43%) are used Free Application because when they getting Free apps then why should they pay more rather than internet charges and Apps users are always concern with free apps only.



From chart 9, it is seen that, In total download of apps 71.88% of applications are Free Apps, 24.88% of Apps are Somewhat paid and 3.22% of Apps are wholly paid Apps. In total no of free apps there will be 8.29% of respondents are under 18 of age, 64.51% of 19-25 of age, 8.29% of 26-35 years of Age and 2.76% of 36-45years of age. In mixture of Paid and Free Apps there will be 0.46% of responders are under 18 of age, 12.90% of 19-25 of age, 7.37% of 26-35 years of Age and 1.14% of 36-45years of age. In Paid Apps there will be 1.38% of responders are 19-25 of age, 1.84% of 26-35 years of Age and there are no user of paid apps in fewer than 18 of age and 36-45years of age. The young age respondents are very much concern about the download pattern (64.51%) Compare to other age group because they want free application and they don't want to pay for the things. They are getting full features of Apps in one or another then they not even to think for pay the price for the Apps. So it is brief that the age factor is effect to the Download pattern of Mobile applications.



From chart 10, it is seen that total the Mobile Application downloading pattern of Married people are 24.78% in that 12.90% of married respondents download only Free Apps, 10.13% of mixture of Paid and Free Apps and 1.84% of only paid apps Total Unmarried respondents who download the Apps are 75.11% where 58.98% of download the Free Apps only , 14.04% of mixture of Paid and Free apps and 1.38% of users use only Paid Apps. The Unmarried people will use the more no. Of apps where the researcher found that they download mostly free Apps and some of them are download mixture of paid and unpaid Apps. Because they were very much crazy about the new trend and they are looking for new technology up gradations where they find more no. Of applications so they go for the free apps and some people are wanted to show their status so they go for the mixture of free and paid apps because sometimes as per the OS they didn't find some Apps freely so they go for paid apps.



From chart 11, it is seen that in total respondents 71.88% are download all free apps in that 45.62% of Student, 17.51% Employees & 8.75% of Business man are involved. Like that In total respondents 28.88% of download the Mixture of Paid and Free apps in that 12.44% of Students, 11.05% of employees and 1.38% of Business man are download the kind of Apps, lastly in total respondents there were 3.22% of respondents are only who use Paid apps only. The students are using more no. Of free applications because they have the time to try different kind of applications and they wanted to try new technology. So students always go for the free apps and along with student's employees and Business man also go for free Apps but when they students cannot find the required feature which they needed, then only they for the paid apps so that download pattern called as combination of Paid and Free Apps. When we talk about Business man, they will not try to download more apps because they will not use more no. Of apps rather than business apps even though they download that will be Free apps or Combination.

**7. FINDINGS**

1. By the research it is found that, in Bagalkot city there are more no. of male respondents are using Smartphone that is 70% of total respondents and ¼ of total respondents are Female respondents in the city.
2. The researcher found from the study is, in Bagalkot city respondents purchase the Smartphone based on the Operating System of the Smartphone, where they Bagalkot city respondents have the Smartphone users, mainly they Android OS Mobiles that is 67.74% of the total respondents. Remaining 32.26% of Respondents include the Windows, Apple, Simbian and Java.
3. By the Study it can be found that, 61.74% of the respondents are satisfied with their Smartphone Operating System because of User friendliness and Free Apps they provide for their users.
4. By the study it is found that, in total social Applications Facebook and What's up are most commonly used App in the Bagalkot City that is more than 70% where as Skype and Line have used more than 50% and remaining WeChat, Google+, Twitter and others are used quite nicely.
5. By the research it is found that, in total respondents, 72.35% of the respondent's use only free Apps in their Smartphones, 24.88% respondents are used combination of paid and free Apps and remaining 2.76% of respondents use only paid Apps.
6. By the study it is found that, In total respondents of Security Apps, 46.54% are neither satisfied nor dissatisfied with the performance of Security Apps, because the apps they download they are not that extent to provide overall security like Theft protection, Virus protection, and general protection like Message, gallery, Apps etc. So the respondents are neither satisfied nor dissatisfied.
7. By the study it is found that, total respondents of downloading Apps, 38.70% of them are satisfied, where as 28.11% of are neither satisfied nor dissatisfied, 24.88% of are Dissatisfied and remaining 8.29% of very much satisfied with the performance of overall Downloading of Apps.
8. By the study it is found that, in total Respondents there will be 71% of Male and 29% of Female using Smartphone based on their Operating Systems. In total Male respondents 49.30% are using Android OS, Remaining Windows OS, Mac OS, Simbian OS and Java OS. In same way Females are 18.43% of Android OS, remaining other OS.
9. By the research it is found that, in total Respondents there are more no. Of students are involved (58.52%) where, they used more as android OS (45.62%), Followed by Windows (4.14%), Apple (2.30%), Simbian and Java (3.22%). The Employee(31.36%) are also involved in respondents where, are use of is Android 15.66%, Windows, Apple & Simbian 4.60%, and Java of 1.84% of Total Employee are used. Finally the Business Man they also involved in the survey with the percentage 10.13% of total Respondents where, only Android and Java OS are used of 6.45% & 3.68% respectively.

**8. CONCLUSION**

The Mobile Applications are growing in the Apps industry. In recent years, there have been dramatic changes to the way users behave, interact and utilize the Mobile Apps. More and more users are accessing the internet via mobile devices like smart phones to take use of Mobile Apps. By this study it can be concluded that the Mobile Application are mostly used by young generation, Unmarried, Students were they always downloaded the Free Applications rather than paid Apps and thus the Apps are achieve the objective of both low complexity and self-learning. In Bagalkot city the Womens Smartphone users are very less in number because many women are households and they don't go out for work and this is why many women in smaller towns don't use Smartphones and they not even known to Mobile Apps. and most of the Smartphones have Android Operating System because the OS is very user friendly and gives more number of Free Apps to the Users from its play store.

**REFERENCES**

1. [http://en.wikipedia.org/wiki/Automotive\\_industry](http://en.wikipedia.org/wiki/Automotive_industry)(From Wikipedia, the free encyclopaedia)
2. [http://en.wikipedia.org/wiki/Automotive\\_industry\\_in\\_India](http://en.wikipedia.org/wiki/Automotive_industry_in_India)(From Wikipedia, the free encyclopaedia)
3. [www.journalofinteractionscience.com/content/1/1/1](http://www.journalofinteractionscience.com/content/1/1/1) (2013)
4. Jackson state University REU 2011
5. [articles.timesofindia.indiatimes.com/keyword/mobile-app/featured/5](http://articles.timesofindia.indiatimes.com/keyword/mobile-app/featured/5)
6. [articles.timesofindia.indiatimes.com/keyword/mobile-app/featured/5](http://articles.timesofindia.indiatimes.com/keyword/mobile-app/featured/5)
7. [techcircle.vccircle.com/2013/05/30/india-has-67m-smartphone-users-desi-netizens-more-open-to-sharing-everything-online-mary-meekeer/](http://techcircle.vccircle.com/2013/05/30/india-has-67m-smartphone-users-desi-netizens-more-open-to-sharing-everything-online-mary-meekeer/)(10-09-2013)
8. <http://articles.timesofindia.indiatimes.com/keyword/mobile-apps> (Nov 28 2013)
9. <http://articles.timesofindia.indiatimes.com/keyword/mobile-app/featured/5> (Nov 28 2013)
10. <http://articles.economictimes.indiatimes.com/keyword/mobile-apps> (Oct 28 2013)

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