# Gender Difference in Internet Usage- a Study among Under Graduate Students in Kannur District, Kerala

**Dr. Bindu V V[1], Jinisha V[2] & Anjana K K[3]**

**[1]Associate Professor, Department of Economics, S.N. College, Kannur, Kerala, India**

**[2,3]B.A. Economics Students, Department of Economics, S.N. College, Kannur, Kerala, India**

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## ABSTRACT

Internet has changed the way individuals and institutions use computer in wide variety of activities. Researchers and scientists, no matter the gender, have to be prepared to overcome the technological obstacles and find needed information for their work. In the present era, the internet is widely used by college students for academic, entertainment and communication purposes. The pattern of internet usage varies between males and females. The study aimed to examine the internet use by male and female undergraduate students. The research was conducted with two main purposes; firstly, to identify student's overall usage pattern of internet. Secondly, to examine is there any gender differences in usage pattern of internet. Internet usage pattern covers items such as knowledge, purpose of using internet, time spend online, mode of access, type of connection used to access internet etc. The sample of this study consists of 80 students (40 male students and 40 female students) of Kannur District. Using convenient sampling technique, the instrument used for data collection was questionnaire developed by the investigators. Findings of the study reveal that the students are heavy Internet users. Both genders have equal access to internet; however, the differences are noticed in terms of usage pattern. Findings of the study further indicate that female respondents are more likely to use internet for educational/research, entertainment purposes than male. Males are more likely to use internet for social networking, playing online games and also online shopping than females. The survey results revealed that there is difference between male and female students on the purpose of internet use.

**Keywords:** Information and communication technology, e-commerce, e-banking, e- business, e-learning, virtual library.

## INTRODUCTION

Development and addiction to the information and communication technology (ICT), especially the Internet, in the last decade has become spread in every aspect of existence. The Organization for Economic Co-operation and Development stated that ICT plays a central role in the development of modern economics and societies. The Information Age has been accepted description for global social structures in the late 20's but due to the accelerated development of ICT the Information Age has changed into the Internet Era. Internet is seen as new information technology that revolutionized the way of conducting business and research. It was first developed by the US Defence Department and it was restricted to academic and research community, nonetheless its potentials were soon recognized by various business organizations and the result of the hasty advancement is the prompt and easy access to required information. The internet is the key information and communication technology that led to a worldwide revolutionary change in the information scenario. Over the last decades, internet connectivity has improved tremendously and is available everywhere such as home, offices, travels and schools. Today's environment there is a drastic change in the way how information are shared as well as networking and socializing take place in every society. No doubt that the internet has become a powerful tool for communication purposes, to exchange ideas, and even used in participation in local, national, and international networking. It is a phenomenon that has completely changed people's lives in every day, starting from communication and business patterns, then moving through the opportunities for the further development of technologies to considering forms and patterns of behavior. At the start of 2021, number of internet users

worldwide stood at 4.66 billion– that's close to 60 percent of the world's total population. Data Reportal showing that 319 million new users came online over the past twelve months-almost 875,000 new users each day. Internet has become the biggest global digital information library, which provides the fastest access to the right kind of information in nano-seconds to end user at any time and at any place in the world. With the advent of Internet, a significant transition can be seen in the academic community's internet has become a global source of information resources accessible at any time by anyone from anywhere in the world. It has converted the whole world into a global information society. It is an international network of networks that is a collection of hundreds of thousands of private and public networks all over the world. In the words of Neil Randall (1996) Internet is the global network of networks that are all inter communicable. There are rich and varied learning experiences available on the Internet that would have been inconceivable just a short while ago. The Internet has a range of capabilities that organizations are using to exchange information internally or to communicate externally with other organizations. The primary infrastructure for e-commerce, e-banking, e-business, e-learning and virtual library is provided by the Internet technology. The Internet contains more information than the world's largest libraries (Emeagwali, 2000). Internet has been widely used for a variety of purposes in several domains. As stated by (Deniz and Coşkun 2004) as an educational tool Internet lets access to inexpensive, global, interactive and intensive computer communication and it also enables the student to improve his/her learning experience. Online users can easily access Internet from a bunch of locations including their homes, workplaces, houses, school, Internet cafes etc. Internet usage in home and work place has grown exponentially. Most of the students reported to have easy access to computers and Internet. The Internet provides several opportunities for the academia. It is a mechanism for information dissemination and a medium for collaborative interaction between individuals and their computers without regard for geographic limitation of space. Internet have made considerable and dramatic impact on contemporary educational practice.

There are numerous debates on the link between gender and the internet usage. Internet plays a vital role in interpersonal functioning, nevertheless, internet is not perceived as gender neutral despite the democratization of internet access, there are pronounced difference in the use of Internet in men and women. The analysis of internet behavior indicated that the gender is a critical determinant due to the fact that the web is not perceived as gender-neutral. Despite internet access becoming increasingly democratized the use of the internet by the men and women differs. Men use the internet mainly for entertainment and leisure; women use it predominantly for interpersonal communication and in the support of education. The majority of studies on Internet adoption and usage, together with studies.

Gender also influences the way in which the Internet is perceived. National and international surveys on new media indicate that in most countries there is a general positive attitude towards the Internet in society. Hence, with the development of the Internet, both male and female users to certain extent are unquestionably dependent on internet as a medium of sharing ideas, building communication network as well as for information search. Thus, internet becomes the main channel for the entire information flow. However, it is being noted by many previous researchers that there is evidence on gender imbalance in the use of the internet. It is said so because of the social conditioning and stereotype in the society and the Internet was linked too much to male due to oriental culture. However, if we look into today's education opportunity and technology advancement, internet access and gender imbalance is not as significant as the access is readily available for both genders. In other words, there is a democratic space to which both genders have equal excess to the Internet.

Results show that adolescents generally have increased their use of social media sites and streaming services. Further, those who scored highly on gaming addiction, compulsive internet use and social media use.

However, Gender comparisons are needed to give a better understanding of students' use of the internet. Gender differences in the use of computers and internet have been well documented during the last two decades. This paper tries to determine whether male and female students had equal opportunities to use the internet. It also investigates students using the Internet and their Internet usage patterns to explore what gender differences, if any, were observed between male and female students both within and outside university for both educational and entertainment purposes. Gender and Internet - There are numerous debates on the relation

between gender and Internet usage. Many researchers are aware of gender inequality in Internet usage. Early involvement of women with digital technology was restricted. In the year 1995, when Internet usage increased dramatically, many women were not in favor with it. However, the transition of developed society has changed how women engage the Internet. With these changes, women's involvement has become more visible. Moreover, Sherman (2000) mentioned that although the majority of Internet users are men, the gender gap among users was narrowing down. Heimrath and Goulding (2001) found that female students at Sheffield University felt that the internet was too big and unstructured thus, searching the internet difficult, not enjoyable and would use it only they have to whereas male students were happy to search the internet for relevant information. In short, although it cannot be denied that Internet is embedded in our daily activities especially in the academic environment, there are reasons why both genders use internet differently and why gender role influences usage behavior.

The most recent concept shows a diminution in the differences between sexes with regard to computer and internet usage, the existence we understand that the "gender gap" has vanished to some extent with respect to usage of the new media and with of pandemic situation. These new findings have made the gender patterns in the adoption and use of new technologies more complicated and suggest the dynamic nature of the relationship between gender and Internet usage.

**Statement of the Research Problem**

Researchers have made an effort to understand is there any gender differences in usage pattern of internet among the undergraduate students. In the present world everyone is using internet. The present study was conducted to create awareness about gender difference in internet usage pattern and to encourage the relevance of internet usage among men and women in modern world.

**Objectives of the Study**

- To identify socio-economic conditions of the students.
- To identify student's overall usage pattern of internet.
- To examine is there any gender differences in usage pattern of internet.

## METHODOLOGY

The information for the study is collected by using primary data and secondary data. Primary data required for the study were collected through sample survey. Data was collected from college students by using a well-structured questionnaire. A questionnaire was drafted through Google form and was mailed to the college students. Sample include 80 college students, 40 male students and 40 Female students within the age group of 17 and 22 years. Initially the data was collected from ten students. Clarifications made in the questionnaire based on this pilot study. Secondary data has also been collected through different sources like books, journals, articles and websites.

## REVIEW OF LITERATURE

Several studies have been conducted in the area of gender differences in internet usage. Following are some of the important studies in our area of the study.

Rabeya Sultana, Asif Imtiaz (2018) the study test findings through empirical examination. The aim to investigate whether there is gender difference in internet usage pattern and what might be the reasons why both genders use them differently. A sample of 176 university students of Bangladesh is analyzed using logit models. The analysis surprisingly reveals that except for the purpose of gaming and commercial transaction, there is insignificant difference between students of both genders in overall internet usage pattern. Men report greater preference for gaming than women do, whereas women's use of internet is higher for commercial transaction than the men.

Ibrahim, H. J. (2018) the main objective of the study was to find out the level of internet access and use among the respondents based on gender, with Kano municipal as a case study. The survey research method was used and stratified sampling was applied to select 200 male and 200 female respondents. Results show that there is gender disparity as more men access and use the internet more than women. The study revealed that more men access and use the Internet than women. Factors responsible for this phenomenon include cost, inadequate skills, inadequate time, especially because of domestic duties, and attitude of men. There is also disparity in pattern of usage as men use the Internet more for professional and work-related issues while women use the Internet more for social networking.

Ann & Maltby (2013) analyzed the impact of the Internet on men's and women's lives. A content analysis of 200 postings from men and 200 from women, on the topic of has the Internet changed your life invited by a news website, was undertaken then examined for gender differences. Results showed more women's postings mentioned having made new friends or having met their partner, renewing old friendships, accessing information and advice, studying online, and shopping and booking travel online, while more men's postings mentioned that the Internet had helped or given them a career, positive socio-political effects, and negative aspects of the technology. The results are interpreted as supporting the view that the Internet represents an extension of broader social roles and interests in the offline world.

Amanda et al (2013) who carried out the research to take a contemporary look at the gender differences. Using an online survey, investigators asked participants about their experiences with multiple forms of mediated communication: social networking sites, e-mail, video calls, instant messaging, texting, and phone calls. Results indicated that women, compared to men, are generally more frequent mediated communication users. Compared to men, women prefer and more frequently use text messaging, social media, and online video calls.

Thanuskodi.S (2013) the paper examines gender differences in Internet usage pattern among male and female students. Internet usage pattern covers items such as knowledge and experience on the Internet. Results of this study suggest that Internet users are not predominantly used by any sex. Both genders have equal access to Internet; however, the differences are noticed in terms of usage pattern. The access is similar for both genders probably because both genders have high exposure to the technology through their educational experience. As such educational attainment to certain extent enables both men and women to realize their capabilities and reach the full potentials. On the other hand, there is a slight variation in the usage pattern at home between men and women due to the influence of gender role.

Anna Bujała (2012) carried out the research based on the Polish edition of the World Internet Project 2011 indicate gender differences both in the intensity of Internet usage and the ways in which it is used. Women spend less time online, have shorter experience online, and express less openness towards online relationships or services. The main gender difference in the kinds of activities undertaken online concern entertainment-men engage much more often in activities such as playing games, listening to music or the radio, watching films, or looking for humorous content than women do. Having said that, it should be noted that the differences are not dramatic, indicating the small size of the "gender gap" among Polish Internet users.

Yousef Eyadat (2012) determined the level of Internet use as it varies by gender among university students in Jordan. A random sample of 278 students from one university of Jordan. Results of the study indicated that university students under study experienced excessive use of the Internet as indicated by the overall mean value and the results indicated that the university students under excessive use of the Internet neglect household responsibilities and neglect exams and courses to spend more time online. Results also indicated that there were no significant differences in the excessive use of the Internet based on differences in gender.

Tao Hu et al (2012) attempted to study the gender differences among college students in their usage perceptions of the Internet. A multiple-variable logistic model was proposed and tested using data gathered from 805 college students. The results of the study suggest gender differences in usage perceptions of the Internet can be detected among college students. Specifically, the differences are reflected in that male college students have a higher level of perceptions of Internet self-efficiency, experience, and information overload than females.

Fayaz Ahamad Loan (2011) identified the gender variability in the Internet use of college students. The stratified sampling technique was employed to select students and data was collected via a questionnaire. The study confirms the existence of gender differences in the Internet use of the college students. However, the differences are slight for most uses. In comparison, more male students are frequent users of Internet than females. Female students use the Internet more than males for information and education whereas male students use the Internet more than females for communication and entertainment. Neither male nor female students record high use the Internet sources like online libraries, databases, e-books, e-journals, wikis, and blogs. The study also finds that both male and female students face problems like information overload and information pollution while searching the Internet.

Jelena Horvat, Dijana Oreski, Danijela Markic (2011) the results reflected that the gender gap in Internet usage among the respondents was existent but almost marginal. Male and female students differ in how they spend their time on the Internet. While female students spend more time working, researching and gathering information for their study, male students spend more time online playing games. Furthermore, gender difference also appears in the use of advanced search options in favor of male students. In general, both male and female students perceived the Internet as useful and have positive feelings towards it, especially to collect information for the study.

Chou c, Tsai m.j (2007) Gender difference in Taiwan high school students showed that male students are motivated to play games than are females. Spending time on social network and playing online games are consider as possible time waster can influence the quality of study results. In the last decade playing online games became the part of social lives and source of entertainment for students.

Ann Brit (2005) investigated how attitudes towards the Internet technology differ between boys and girls, and how this affects their critical approach when seeking information. The approach is ethnographic, and the material was collected by means of observations, conversations, questionnaires, interviews, computer logs and reading documents. The analyses were made with the help of software for qualitative analysis, where all sentences both from interviews and field notes were coded. Some analyses were strictly quantitative and compared data from coded qualitative material with questionnaires and computer logs in a database sheet. Others were of qualitative nature and based on selected material from the coded texts. Results indicated that it cannot be seen that boys and girls have different interests in the Internet technology in practice. But boys talk about their knowledge to a greater extent, and this interplays with their reflections about the Internet's reliability.

Joiner et al. (2005) the study involved 608 undergraduate students (490 females and 118 males). We found a number of gender differences in participants ‘use of the Internet. Males were proportionally more likely to have their own web page than were females. They used the Internet more than females; in particular, they were more likely to use game websites, to use other specialist websites, and to download material from the Internet. However, females did not use the Internet for communication more than males.

Madell and Muncer (2004) determined whether or not a gender difference exists in theInternet use activity and to inform later studies of more specific aspects of this activity among the English secondary school students’ boys. In the use of E-mail, there was not a significant difference between the genders. However, males were significantly more likely than females to use the Internet for search engine. With regard to gender differences, it was found that the number of hours per week that males used the Internet was significantly higher than the number that females used it. Boys were more likely than girls to use the Internet for playing or downloading music, browsing to find out information about goods and services, buying or ordering goods, tickets or services, down loading software, including games and also using the net for accessing government or official services. However, girls used the Internet more than boys for using E-mail, finding information related to education and using chat rooms or sites. There were significant gender differences in finding out about new web sites/web pages via hyperlinks from other web pages, from Internet search engines and from Internet directories.

Hiroshi Ono and Madeline Zavodny (2002) examine the extent of gender differences in several measures of Internet usage during the period 1997-2001. We use several data sets to estimate the determinants of whether

an individual uses the Internet at all, how frequently, and how many different uses. In addition to reporting differences in means, we use multi variate regression techniques to control for a large set of socio economic and demographic characteristics. The results indicate that women were significantly less likely than men to use the Internet during the late 1990s but that this difference disappeared by 2000 and perhaps reversed in 2001. However, the results also indicate that women remained less frequent and less intense users of the Internet.

Shaw and Gant (2002) find that many believe that males and females use and regard computer technology differently. Males are generally assumed to be more comfortable with, more adaptable to, and less anxious with computer technology. The same biases are now being applied specifically to Internet technology. Based on research showing that men prefer to use the Internet for information gathering and entertainment, while women prefer to use the Internet for interpersonal communication, this study examined the effects of Internet use when both males and females engaged in the same activity. Although previous studies have concluded not only that males and females differ in their computer cognitions and attitudes, but also that they differ in the types of applications they pursue online, no gender differences were found in the present study.

Odell et al. (2000) used survey data collected from college students of institutions of higher learning in Georgia, considers these questions: (1) has the gender gap in Internet use narrowed among college students to the same extent as it has in the general adult population? (2) Do female students differ from males in how they spend their time on the Internet? (3) Does family income, parental education or type of college influence female college students' use of the Internet? Results indicate that while the gender gap in use of the Internet has nearly closed, differences still remain in how male and female undergraduates use the Internet.

Eric Weiser (2000) assessed the gender differences in specific uses of the Internet. The survey included 19 items and was made available to Internet users. For comparison, a paper-and-pencil version was administered to several hundred introductory psychology students. Numerous gender differences in preferences for specific Internet applications emerged. Results showed that males use the Internet mainly for purposes related to entertainment and leisure, whereas women use it primarily for interpersonal communication and educational assistance. However, additional analyses showed that several gender differences were mediated by differences in age and Internet experience.

Nachimas, Moiduser and Shemla (2000) study presents that gender differences in the use of the Internet exist with larger and more extensive usage by male population. Males are also found to spend more of their time on the Internet, indicating preferred locations for use, resources downloading, websites creation and participation in discussion groups.

Land, M. J (1999) this multi-method study examines the differences in male and female computer use in the home of children ages 9-14. Long interviews, observations, and surveys with children show males spend more time on the computer, but not on-line than females. Males and females engage in different computer activities. They play computer games about the same amount of time, but females spend more time on the computer to do word processing and desk-top publishing activities. Males play more games on-line, while females spend more time on-line to communicate. Females also spend more time with the established media in the home, specifically the radio, and audio/visual media.

## RESULTS AND DISCUSSION

The present study entitled “Gender Differences in Internet Usage- A Study Among Under Graduate Students In Kannur District” was conducted among 80 sample respondents in Kannur district by using the convenient sampling method. Primary data were collected by using a questionnaire. The data collected from the samples are tabulated and analysed with the help of different statistical tools including percentage, bar diagram, pie diagram etc.in the following sections. The gender distribution of the sample students. Out of 80 sample respondents, 50 percent are male students and remaining 50 percent are female students. To make a comparison regarding the use of internet the researchers choose this type of sample i.e., half are male students and remaining half are female students. Out of the total sample students, 5 percent are belonging to the age group 17 to 18 years. 26.25 percent are included in the category of 18 to 19 years. 20 percent are within age

group of 19 to 20, 45 percent of the sample students belongs to the age group of 20 to 21 years and 3.75 percent belongs to the age group 21 to 22. 12.5 percent sample students have 3 members in their family. 53.75 percent students have 4 members. 21.25 percent students have 5 members and 12.5 percent students have 6 members in their family.

Table 1 Occupational classification of Parents

| Occupation | Father | | Mother | |
|---|---|---|---|---|
| | Frequency | Percentage (In %) | Frequency | Percentage (In %) |
| Government employee | 10 | 12.5 | 9 | 11.25 |
| Private employee | 19 | 23.75 | 10 | 12.5 |
| Self employed | 20 | 25 | 3 | 3.75 |
| Daily wages | 31 | 38.75 | 5 | 6.25 |
| House wife | Nil | Nil | 52 | 65 |
| Total | 80 | 100 | 80 | 100 |

Source: primary data

Table 1 shows the occupational classification of parents.12.5 percent fathers and 11.25 percent mothers are Government employees,23.75 percent fathers and 12.5 percent mothers are private employees,25 percent fathers and 3.75 percent mothers are self-employed,38.75 percent fathers and 6.25 percent mothers are daily wage earners,65 percent mothers are house wives. This inference shows that most of the mothers are house wife and most of fathers are daily wage earners.

Table 2 Family Income (Monthly)

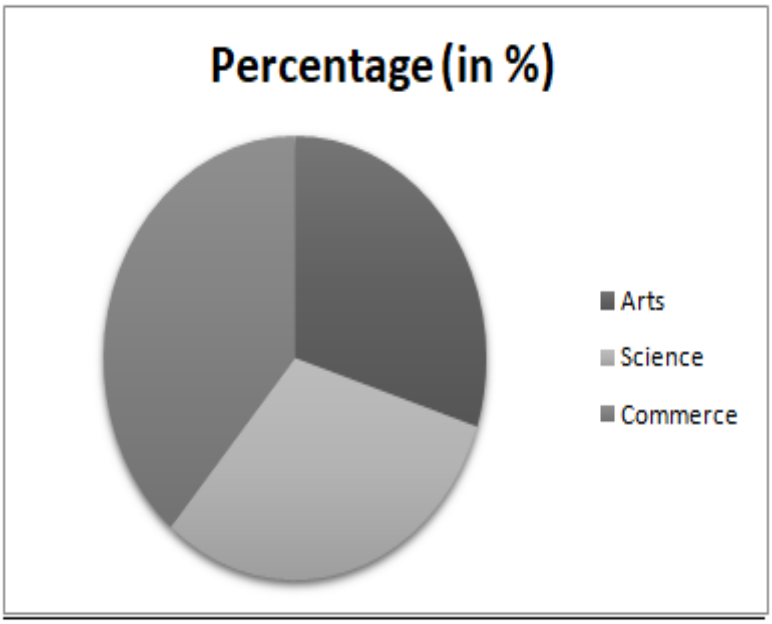
| Monthly income (₹) | Number of respondents | Percentage (in %) |
|---|---|---|
| Less than 2000 | 11 | 13.75 |
| 2000-4000 | 13 | 16.25 |
| 4000-6000 | 9 | 11.25 |
| 6000-8000 | 5 | 6.25 |
| 8000-10000 | 13 | 16.25 |
| More than 10000 | 29 | 36.25 |
| Total | 80 | 100 |

Source: primary data

Table 2 provides information about the monthly income of the respondents' family. Out of the 80 samples there are 13.75 percent students' family have monthly income less than 2000. 36.25 percent have more than 10000 as their family income. Among the samples the lowest i.e., 6.25 percent have a monthly income within the range of 6000 to 8000. Out of the total sample students, 16.25 percent students are employed but have part-time jobs. 83.75 percent are not employed. The employed students are able to find adequate income for meeting their phone recharge requirements and other requirements. But others have to depend on their parents for meeting these requirements.

Out of total samples (13) students who are doing part-time jobs, 30.8 percent students earn income through online activities like online tuition, playing game, rewards obtained through purchase from Flipkart, Amazon etc. 23.07 percent are doing catering service, 23.1 percent are taking tuition, 7.69 percent are doing blogging and are earning adequate income, which are used for recharging purposes.

Figure 1 Discipline wise distribution of samples




Source: primary data

Figure 1 provides information that 38.75 percent samples students are from Commerce discipline, 31.25 percent are from science and 30 percent are from Arts discipline.

Table 3 Distribution of the sample on the basis of knowledge regarding Internet Usage

| Level of knowledge | MALE STUDENTS | | FEMALE STUDENTS | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Excellent | 20 | 50 | 5 | 13 | 25 |
| Very Good | 20 | 50 | 28 | 70 | 48 |
| Good | Nil | Nil | 7 | 18 | 7 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 3 shows gender difference is taken into account in terms of level of knowledge about internet. 50 percent of the male students have excellent knowledge about internet use but at the same time only 13 percent of the female students have excellent knowledge about the use of internet. 50 percent of male students have very good knowledge about internet use but at the same time 70 percent of females have very good knowledge. None of male is included in the category of good knowledge about internet use. But in the same category 18 percent were females. This inference shows that, male students have excellent knowledge about internet use as compared to females. students There exists a gender gap in knowledge about internet use. Out of the 80 samples more people possess their own mobile phone (i.e. 97.5 percent) were male students and 90 percent were female students. 2.5 percent of male students and 5 percent female students do not possess their own mobiles. They were using parents, brothers, and sister's phone. Here also gender differences observed in the possession of mobiles, i.e., a greater number of male students possess mobile than female students. Due to COVID-19 pandemic situation education become online, students are compelled to purchase own mobiles. If we are comparing the situation of previous years, it is observed that earlier mobile use is restricted in campuses, but due to pandemic the situation totally changed.

Table 4 Number of Mobile Applications used by the samples

| No. of applications used | MALE STUDENTS | | FEMALE STUDENTS | | GRAND TOTAL |
|---|---|---|---|---|---|
| | frequency | percentage | frequency | percentage | |
| 1-4 | 2 | 5 | 6 | 15 | 8 |
| 4-8 | 2 | 5 | 10 | 25 | 12 |
| 8-12 | 8 | 20 | 10 | 25 | 18 |
| 12-16 | 12 | 30 | 2 | 5 | 14 |
| 16-20 | 3 | 7.5 | 3 | 7.5 | 6 |
| 20-24 | 13 | 32.5 | 9 | 22.5 | 22 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 4 provides information about the number of mobile applications used by the sample respondents. 5 percent male students and 15 percent female students are using in the range of l to 4 applications, 5 percent male students and 25 percents female students are using 4 to 8 applications, 20 percent male students and 25 percent female students using in the range of 8 to 12 applications , 13 percent male students and 5 percent female students using in the range 12 to 16 , 7.5 percent male students and 7.5 percent female students are using in the range of 16 to 20 application, 32.5 percent male students and 22.5 percent female students are using in the range of 20 to 24 applications. It reveals that when the number of the application increases, number of applications used by the female students decreases whereas number of applications used by the male students increases. Here also gender difference observed in the case of number of applications used by the respondents. Therefore, male students are more likely than female students in using a greater number of applications.

Table 5 Preference wise distribution of application used by the samples

| Purposes | MAIL | | FEMALE | | Grand total |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Educational | 14 | 35 | 20 | 50 | 34 |
| Gaming | 8 | 20 | 5 | 12.5 | 13 |
| Entertainment | 12 | 30 | 11 | 27.5 | 23 |
| Lifestyle | 2 | 5 | 2 | 5 | 4 |
| Travel | 1 | 2.5 | Nil | Nil | 1 |
| Utility | 1 | 2.5 | Nil | Nil | 1 |
| Business | 2 | 5 | 2 | 5 | 4 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 5 provides information that out of 80 samples, 35 percent males students and 50 percent females students are preferred to use the application based on educational purposes. As in the earlier situation educational application are less important in the view point of students because students were going to colleges and obtained education. But in the current scenario, those students are forced to use application based on education due to introduction of online class, online tuition, webinar etc. Remaining 20 percent male students and 12.5 percent female students are preferred to use application based on games such as PUBG, LUDO, Free

fire, and PES etc. 30 percent male students and 27.5 percent female students are preferred to use application based on entertainment such as face book, TikTok, Netflix, Hotstar, Instagram etc.5 percent male and 5 percent female are preferred to use application based on lifestyle purposes such as Spotify, TripAdvisor etc.. 2.5 percent male are preferring to use application based on travel such as hopper, road tripper, pack point etc... 2.5 per cent male are preferred to use application based on utility such as reminders, calculator, weather, Google assistant, etc... 5 per cent male students and female students are preferred to use application based on business such as cloud print, Google drive etc...

Table 6 Distribution based on service providers

| Service providers | MALE | | FEMALE | | Grand total |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Airtel | 12 | 30 | 10 | 25 | 22 |
| Vi | 8 | 20 | 12 | 30 | 20 |
| BSNL | 6 | 15 | 8 | 20 | 14 |
| Jio | 14 | 35 | 10 | 25 | 24 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 6 provides the information that out of 80 samples, 30 percent male students and 25 percent female were using the service provider Airtel, 20 percent male students and 30 percent female students were using the service provider Vi, 15 percent male and 20 percent female students were using the service provider BSNL, 35 percent male students and 25 percent female students were using the service provider Jio.

Table 7 Distribution based on device used

| DEVICE USED | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Smartphone | 32 | 80 | 36 | 90 | 68 |
| Personal Computer | Nil | Nil | 1 | 2.5 | 1 |
| Personal computer& smart phone | 3 | 7.5 | 1 | 2.5 | 4 |
| Smartphone &Tablets | 4 | 10 | 2 | 5 | 6 |
| Smartphone &Laptop | 1 | 2.5 | Nil | Nil | 1 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 7 provides the information that out of 80 samples, 80 percent of the male use the internet through smart phone and 90 percent were female students, 7.5 percent male and 2.5 percent female students used to connect internet through both personal computer and smart phones. The males who use both smart phone and tablets were 10 percent and female were 5 percent,2.5 percent male are used to connect Smartphone together with laptop but female respondents are not in this category.

Table 8 Distribution based on type of connection used to access internet

| Type Of Connection used | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Mobile | 29 | 72.5 | 25 | 62.5 | 54 |
| Hotspot | 2 | 5 | 7 | 17.5 | 9 |
| Broad band | 2 | 5 | 1 | 2.5 | 3 |
| Mobile & hotspot | 4 | 10 | 6 | 15 | 10 |
| Mobile & broad band | 3 | 7.5 | 1 | 2.5 | 4 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 8 shows information that 72.5 percent male and 62.5 percent female were using mobile as an access to connect internet, 5 percent male and 17.5 percent female were using hotspot for connect internet, 5 percent male and 2.5 percent female use broadband, 10 percent male and 15 percent females use mobile and hotspot together to connect internet, 7.5 percent male and 2.5 percent female use mobile and broadband to connect internet.

Table 9 Distribution based on search engine used

| Search engine | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Google | 25 | 62.5 | 21 | 52.5 | 46 |
| Chrome | 5 | 12.5 | 6 | 15 | 11 |
| Google &chrome | 10 | 25 | 13 | 32.5 | 23 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 9 shows the information about search engine used by the sample respondents. 62.5 percent male students and 52.5 percent female students are used Google as search engine,12.5 percent male students and 15 percent female are used chrome as search engine, 25 percent male students and 32.5 percent female students are used both Google and chrome as search engine.

Table 10 Distribution based on time spent in internet (per day)

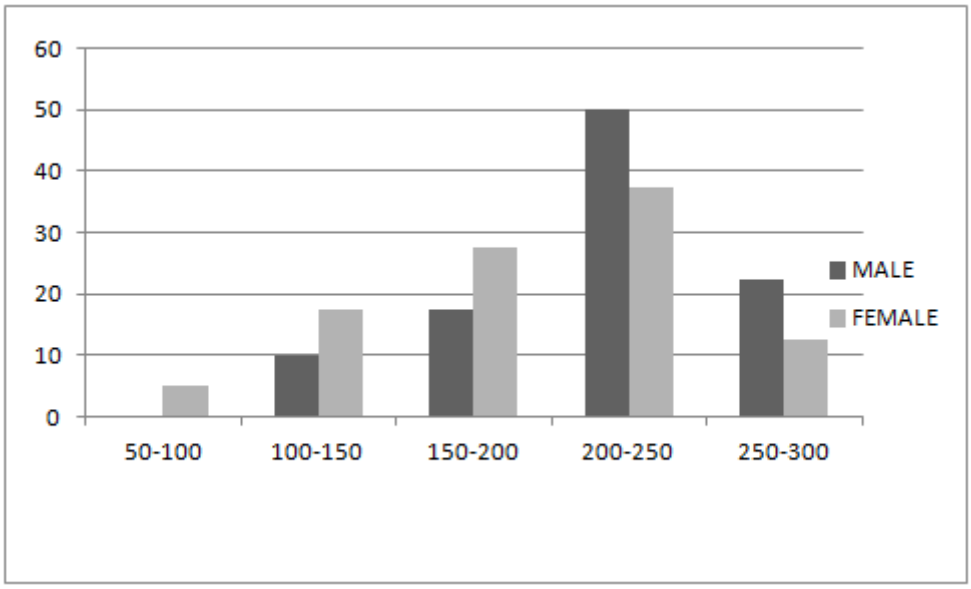
| Internet usage in a day (in Hours) | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| 0-1 | Nil | Nil | 1 | 2.5 | 1 |
| 1-3 | 5 | 12.5 | 3 | 7.5 | 8 |
| 3-6 | 22 | 55 | 16 | 40 | 38 |
| 6-9 | 9 | 22.5 | 17 | 42.5 | 26 |
| 9-12 | 4 | 10 | 3 | 7.5 | 7 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 10 provides the information about the distribution based on time spend in internet in a day. None of the male students are not involved in 0 to 1 hour in a day for internet spending, but 2.5 percent female students are

spending 0 to 1 hour, 12.5 percent male students and 7.5 percent female students are spend 1 to 3 hour in a day to access internet,55 percent male students 40 percent female students are spend 3 to 6 hours in a day to access internet,.22.5 percent male students and 42.5 percent female students are spend during 6 to 9 hour in a day to access internet, 10 percent male students and 7.5 percent female students are spending 9 to 12 hour in a day to access internet. This inference shows that in the first and second category the number of samples spends on internet is less but in the succeeding category the number of samples spends on internet is high except 9 to12 hours.

Figure 2 Monthly expenditure for internet recharging




Source: primary data

Figure 2 shows that, out of 80 sample none of the male students are recharging in the range of 50 to 100 during a month, whereas 5 percent female students are recharging in this range, 10 percent male students and 17.5 percent female students are recharge in the range of 100 to 150, 17.5 percent male students and 27.5 percent female students are recharging within the range of 150 to 200, 50 percent male students and 37.5 percent female students are recharge in the range of 200 to 250 and 22.5 percent male students and 12.5 percent female students are recharge in the range of 250 to 300. It indicates that most of the samples are spending 200 to 250 costs for monthly recharge of internet.

Table 11 Distribution based on type of internet package used

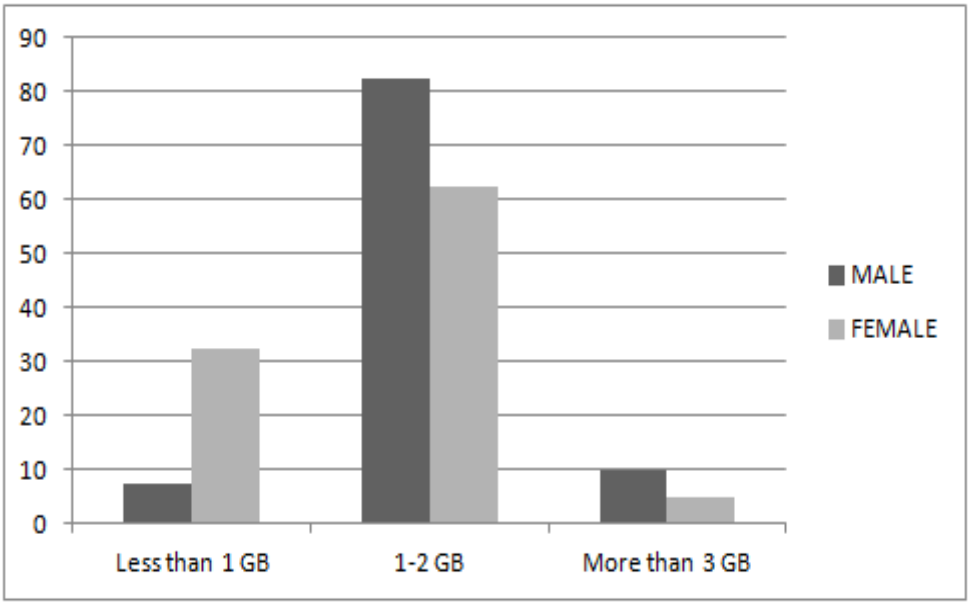
| Packages | MALE | | FEMALE | | GRANT TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Daily | 2 | 5 | 5 | 12.5 | 7 |
| Monthly | 25 | 62.5 | 27 | 67.5 | 52 |
| 3 months | 11 | 27.5 | 8 | 20 | 19 |
| 1 year | 2 | 5 | Nil | Nil | 2 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 11 provides the information about type of internet package used by the sample respondents. 5 percent male students and 12.5 percent female students were using daily pack for internet recharging, 62.5 percent

male students and 67.5 percent female students were using monthly pack, 27.5 percent male students and 20 percent female students were using three-month pack for internet recharge, 5 percent male students are using one year pack, at the same time no female students are using one year pack for internet recharge.

Figure 3 Usage of data wise distribution




Source: primary data

Figure 3 shows, out of 80 sample respondents,7.5 percent male students and 32.5 percent female students were spending data less than 1 GB, 82.5 percent male students and 62.5 percent female students were spending data in the range 1 to 2 GB,10 percent male students and 5 percent female students were spending data more than 3 GB.it reveals that male students are consuming more internet Data GB than that of female students, it is a clear proof there exits gender difference in internet usage.

Table 12 Dependency for internet recharge

| Dependency for internet recharge | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Mother | 5 | 12.5 | 6 | 15 | 11 |
| Father | 23 | 57.5 | 28 | 70 | 51 |
| Brother | 2 | 5 | 2 | 5 | 4 |
| Grandmother | 1 | 2.5 | Nil | Nil | 1 |
| Self | 9 | 22.5 | 4 | 10 | 13 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 12 shows the information about respondent's dependency for internet recharge.12.5 percent male students and 15 percent female students were depends on their mother for internet recharge, 57.5 percent male students and 70 percent female students were depends on father for internet recharge, 5 percent male students and female students were depend brother for internet recharge, 2.5 percent male students were depends grandmother but at the same time no female students were depend on grandmother for internet recharge.

Table 13 Gender Wise Responses of the Respondents based on Purposes of Using the Internet

| Preference based activities | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Education/research | 15 | 37.5 | 29 | 72.5 | 44 |
| Social networking | 9 | 22.5 | 5 | 12.5 | 14 |
| Playing online games | 9 | 22.5 | 1 | 2.5 | 10 |
| Online shopping | 4 | 10 | 1 | 2.5 | 5 |
| Entertainment | 3 | 7.5 | 4 | 10 | 7 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 13 shows that male students and female students were using internet for different activities. But there occurred a change in the per day internet activities of male students and female students due to pandemic situation. Out of the 80 sample, 37.5 percent male and 72.5 percent female students use internet for educational/research purpose. 22.5 percent male students and 12.5 percent female students were using internet for social networking, 22.5 percent male students and 2.5 female students were using internet for playing online games, 10 percent male students and 2.5 percent female students were using internet for online shopping, 7.5 percent male students and 10 percent female students were using internet for entertainment purposes.

Table 14 Distribution based on time which is more preferred to use interne

| Time which is preferred to use internet | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Morning | 3 | 7.5 | 8 | 20 | 11 |
| Afternoon | 5 | 12.5 | 3 | 7.5 | 8 |
| Evening | 7 | 17.5 | 10 | 25 | 17 |
| Night | 25 | 62.5 | 19 | 47.5 | 44 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 14 shows that out of 80 sample, 7.5 percent male students and 20 percent female students are preferred to use internet in morning, 12.5 percent male students and 7.5 percent female are preferred to use internet in afternoon, 17.5 percent male and 25 percent female are preferred to use internet in evening, 62.5 percent male students and 47.5 percent female students preferred to use internet in night. This inference shows that both male and female students are preferring to use internet at night, but male students using more at night.

Table 15 Distribution based on online game player or non-player

| Gamer or Not | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Gamer | 34 | 85 | 25 | 50 | 59 |
| Non-Gamer | 6 | 15 | 15 | 37.5 | 21 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 15 shows that out of the 80 sample respondents, 85 percent male and 50 percent female were using internet for gaming purposes. Remaining 15 percent male students and 37.5 percent female were non-players. They are also getting rewards, coins, etc. from the online games which encourage them to play more. Even if we observed the gender differences in the case of number of samples who playing online games, male students are more in number when compared to female students.

Table 16 Most preferred Online Game

| GAMES | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Player Unknown's Battlegrounds | 17 | 50 | 3 | 12 | 20 |
| Ludo | 3 | 8.82 | 22 | 88 | 25 |
| pro evolution soccer, | 5 | 14.71 | Nil | Nil | 5 |
| Real cricket | 3 | 8.82 | Nil | Nil | 3 |
| Free fire | 6 | 17.65 | Nil | Nil | 6 |
| Total | 34 | 100 | 25 | 100 | 59 |

Source: primary data

Table 16 shows the information about the online game which is more interested by the sample respondents who playing online games. 50 percent male students and 12 percent female students are more interested in Player Unknown's Battlegrounds, 8.82 percent male and 88 percent female students are interested in playing ludo, 14.71 percent male students are interested in playing pro evolution soccer, 8.82 percent male are interested in playing real cricket, 17.65 percent male students are playing free fire, none of the female students are not playing these three games.

Table 17 Distribution based on time taken for playing online game

| Time (hrs.) | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| 0-1 | 10 | 29.41 | 21 | 84 | 31 |
| 1-2 | 12 | 35.29 | 4 | 16 | 16 |
| 2-3 | 9 | 26.47 | Nil | Nil | 9 |
| 3-4 | 3 | 8.82 | Nil | Nil | 3 |
| Total | 34 | 100 | 25 | 100 | 59 |

Source: primary data

Table 17 shows time wise distribution for playing online games. 29.41 percent male students and 84 percent female students are playing online game in the range of 0 to 1 hour.35.29 percent male students and 16 percent female students are playing online game in the range of 1 to 2 hour. 26.47 percent male students are playing

online game in the range of 2 to 3 hours. 8.82 percent male students are playing in the range of 3 to 4 hours. None of the female students were engaged to play online games in the range of 2 to 3 hours and 3 to 4 hours.

Table 18 Favorite chat room of the respondent

| CHAT ROOMS | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| WhatsApp | 19 | 47.5 | 17 | 42.5 | 36 |
| Instagram | 9 | 22.5 | 12 | 30 | 21 |
| Messenger | 2 | 5 | 5 | 12.5 | 7 |
| Face book | 8 | 20 | 2 | 5 | 6 |
| Snap chat | 2 | 5 | 4 | 10 | 6 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 18 provides the information about the favorite chat room of respondents.47.5 percent male and 42.5 percent female favorite chat room is WhatsApp 22.5 percent male and 30 percent female favorite chat room is Instagram,5 percent male students and 12.5 percent female students prefer Messenger, 20 percent male and 5 percent female students prefer Facebook,5 percent male students and 10 percent female students prefer Snapchat. This inference shows that both male students and female students favorite chat room is WhatsApp.

Table 19 Distribution based on number of social media accounts used by respondents

| Number of social media account | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| 1 | 2 | 5 | 3 | 7.5 | 5 |
| 2 | 3 | 7.5 | 9 | 22.5 | 12 |
| 3 | 4 | 10 | 14 | 35 | 18 |
| 4 | 6 | 15 | 7 | 17.5 | 13 |
| 5 | 6 | 15 | 6 | 15 | 12 |
| 6 | 8 | 20 | 1 | 2.5 | 9 |
| 7 | 11 | 27.5 | Nil | Nil | 11 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 19 shows the information about the number of social media account possessed by sample respondents.5percent male and 7.5 percent female have one social media account ,7.5 percent male and 22.5 percent female have two social media account,10 percent male and 35 percent female have three social media account ,15 percent male students and 17.5 percent female students have four social media account,15 percent male and female have five social media account,20 percent male students and 2.5 percent female students have six social media account,27.5percent male and none female have seven social media account. It reveals that when the number of the social media accounts increases, number of social media account used by the female decreases whereas number of social media account used by the male increases. Here also gender difference observed in the case of number of social media account used by the respondents. Therefore, males are more likely than female students for having more social media account.

Table 20 Updating of current knowledge through internet

| Updating of current knowledge | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Highly satisfactory | 19 | 47.5 | 18 | 45 | 37 |
| Satisfactory | 18 | 45 | 17 | 42.5 | 35 |
| Less satisfactory | 3 | 7.5 | 5 | 12.5 | 8 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 20 shows the information that internet helps in updating current knowledge about world.47.5 percent male students and 45 percent female students are highly satisfactory in updating current knowledge by using internet.45 percent male students and 42.5 percent female students are satisfactory in updating current knowledge by using internet.7.5 percent male students and 12.5 percent female students are less satisfactory in updating current knowledge by using internet. This inference shows that male students and female students are highly satisfied in using internet for updating current knowledge.

Table 21 Internet recharge - An inevitable thing

| Internet recharge - an inevitable thing | MALE | | FEMALE | | GRAND TOTAL |
|---|---|---|---|---|---|
| | Frequency | Percentage | Frequency | Percentage | |
| Yes | 34 | 85 | 28 | 70 | 62 |
| No | 6 | 15 | 12 | 30 | 18 |
| Total | 40 | 100 | 40 | 100 | 80 |

Source: primary data

Table 21 shows the information about the sample students' opinion about the internet recharge is an inevitable thing. 85 percent male students and 70 percent female students are supporting this argument. 15 percent male students and 30 percent female students are opposing this argument.

## FINDINGS

The following section continues with the findings derived from the study.

1. Gender wise distribution indicates that out of the total 80 sample students, 50 percent belongs to female students and 50 percent are male students.
2. Age wise distribution indicates that 45 percent of sample students belong to 20 to 21 and 3.75 percent were belonging to age group 21 to 22.
3. Taken into account the family status of the sample respondents, 53.75 percent sample students have four members in their family. None of the sample respondents have two members in their family.
4. Study shows that 35 percent samples student's fathers were SSLC qualified and 26.25 percent sample student's mothers were both plus two and degree qualified.
5. 38.75 percent sample student's father, were daily wages earners and 65 percent sample student's mother, were house wives. Even though mothers were highly educated compared to fathers, but they are not engaging in productive activities and only 35 percent were engaging in productive activities. And remaining 65 percent mothers were engaging in unproductive role.
6. 36.25 percent sample students have more than 10,000 as their monthly family income and 6.25percent sample students have monthly income between 6000 to 8000.

7. Out of the 80, 16.25 percent sample students are employed but have part-time jobs
8. They are doing part-time jobs such as tuition, salesman/salesgirl, online earning, catering service, Blogging. They are earning adequate income, which can be used for recharging purposes and also to use other requirements
9. 40 percent students were residing in urban, and 60 percent were in rural area.
10. 38.75 percent sample students are from Commerce discipline, 31.25 percent are from science and 30 percent are from Arts discipline.
11. Gender differences are taken into account in terms of level of knowledge about internet. Male students are more expertise than female students regarding the level of knowledge about internet.
12. The ownership of smart phone with Internet connection was high among the students. 97.5 percent male students possess their own mobile phone and 90 percent were female students. Here also gender disparity observed in the possession of mobiles, i.e., a greater number of male students possess mobile than female students. COVID-19 pandemic situation changed the pattern of education, become online, students are compelled to purchase own mobiles. If we are comparing the situation with previous years, it is observed that earlier mobile use is restricted in campuses, but due to pandemic, the situation totally changed.
13. Study reveals that when the number of the application increases, number of applications used by the female students decreases whereas number of applications used by the male students' increases. Here also gender differences observed in the case of number of applications used by the respondents. Therefore, male students are more likely than female students to use a greater number of applications.
14. Both male students and female students are preferred to use the application based on educational purposes. But when comparing the number of sample students, female students are more likely to use application based on education.
15. Male students preferred to use service provider as Jio and female students preferred to use Vi.
16. Smart phone is the common mode of access for connecting internet among male students and female students.
17. 72.5 percent male students and 62.5 percent female students use mobile as the type of connection
18. In general, the most popular search engine among examined students is Google.
19. 55 percent male students consuming internet during 3 to 6 whereas 42.5 percent female students consuming internet during 6 to 9.
20. Both male students and female students spend 200 to 250 rupees for internet recharge.
21. Monthly internet pack is preferred by both male students and female students.
22. 1 to 2 GB is preferred by both male students and female students.
23. Samples students, who are doing part-time jobs, meet their recharge requirements from their own income. Male students are more self-dependent comparing to female students.
24. Female students are more likely to use internet for educational/research, entertainment purposes than male students. Male students are more likely to use internet for social networking, playing online games and also online shopping than female students.
25. Male students and female students are preferring to use internet at night; survey research shows that male student using internet more at night.
26. 37.5 percent female students prefer time between 10pm to 11pm to go offline where as 37.5 percent male students are preferred12pm to 01am to go offline.
27. Gender differences are noticed in the case of number of sample students who is playing online games; male students are more in number when compared to female students.
28. Male students prefer games such as Player Unknown's Battlegrounds, pro evolution soccer, real cricket, free fire whereas female students prefer game such as ludo.
29. Male students spend 1 to 2 hours for playing online games whereas female students spend 0 to 1 hour. Here also we observed the gender difference.
30. Male students and female students favorite chat room is WhatsApp.
31. Male students are large in number in using internet for chatting for long hours that is 4 to 5 hours, but females are not poor in using internet for chatting for long hours, but they are behind the males in using for chatting purposes that is 3 to 4 hours.

32. Gender difference observed in the case of number of social media account used by the respondents. Therefore, male students are more likely than female students to use a greater number of social media account.
33. Male students and female students are highly satisfied in using internet for updating current knowledge
34. 85 percent of male students and 70 percent female students' opinion is that the internet recharge is an inevitable thing in life.15 percent male students and 30 percent female students opposing this argument.

## LIMITATIONS OF THE STUDY

- Even though convenient sampling method was adopted, due to limited time relatively small number was selected for conducting the survey
- Lack of poor connectivity a detailed survey was not possible.
- Poor degree of reliability in response.
- Based on the response of the samples reached the conclusion that gender differences exist in playing game, difference exist time of using mobile etc. No test was applied to study the gender difference.

## CONCLUSION

Internet is becoming one of the main communicating and researching tools for students. An attempt has been made to study the use of internet by the undergraduate students of Kannur, Kerala. It is hoped that the present study has provided an understanding of the use of internet by the students. The study reveals that all students use internet in the present world. Most of them use internet through mobile phones. They use internet mainly for educational purpose. The study shows that a majority of the students use mobile internet because it is easy to use. Internet is widely used for the educational activities like access for doing online courses, for audio or video lectures, for seeking information regarding job opportunities, for job training, and use of dictionaries for language learning. The aim of this paper was to explore undergraduate's use of the Internet, and to examine the gender differences in internet usage. The results reflected that the gender gap in Internet usage among the respondents was existent but almost marginal. Male and female students differ in how they spend their time on the internet. Both male and female are preferred to use the application based on educational purposes. But when comparing the number of sample respondents, females are more likely to use application based on education. Study reveals that when the number of the application increases, number of applications used by the female decreases whereas number of application used by the male increases. Findings of the study further indicate that female respondents are more likely to use internet for educational/research, entertainment purposes than male. Male are more likely to use internet for social networking, playing online games and also online shopping than female. So, with respect to ICT, gender equality should not only be about equal number of men and women using technology, but using it purposefully, meaningfully and productively, in ways which enhance individual well-being as well as democracy.

## REFERENCES

1. Ahmad Loan, F. (2011). Gender variability in internet use of the college students. Journal of Society in Kashmir, 1, 156–164.
2. Bujala, A. (2012). Gender differences in internet usage. Acta Universitatis Lodziensis. Folia Sociologica, 43.
3. Chou, C., & Tsai, M. J. (2007). Gender differences in Taiwan high school students' computer game playing. Computers in Human Behavior, 23(1), 812–824.
4. Eyadat, Y. (2012). Excessive use of the Internet and gender: The case for university students in Jordan. In 2012 9th International Conference on Information Technology—New Generations (pp. 83–87). IEEE. https://doi.org/10.1109/ITNG.2012.83
5. Hossain, M. A., & Rahman, M. H. (2017). Comparative study of internet usage among university students: A study of the University of Dhaka, Bangladesh. European Scientific Journal, 13.
6. Horvat, J., Oreski, D., & Markic, D. (2011). Gender differences in the Internet usage among postgraduate students.

7. Joiner, R., Gavin, J., Brosnan, M., Cromby, J., Gregory, H., Guiller, J., Maras, P., & Moon, A. (2005). Gender, Internet identification, and Internet anxiety: Correlates of Internet use. CyberPsychology & Behavior, 8(4), 371–378.
8. Land, M. J. (1999). Evidence of gender disparity in children's computer use and activities. Department of English, Speech, & Journalism, Georgia College & State University.
9. Madell, D., & Muncer, S. (2000). Gender differences in the use of the Internet by English secondary school children. Social Psychology of Education, 7, 229–251.
10. Ono, H., & Zavodny, M. (2002). Gender and the Internet (Federal Reserve Bank of Atlanta Working Paper No. 2002-10). Federal Reserve Bank of Atlanta.
11. Odell, K., Korgen, K., Schumacher, P., & Delucchi, M. (2000). Internet use among female and male college students. CyberPsychology & Behavior, 3(5), 855–862.
12. Sultana, R., & Imtiaz, A. (2018). Gender difference in internet usage pattern: A study on university students of Bangladesh. Socio-Economic and Business Studies Journal, 5(5). https://doi.org/10.21276/sjebm.2018.5.5.10
13. Thanuskodi, S. (2013). Gender differences in Internet usage among college students: A comparative study. Library Philosophy and Practice (e-journal), 1052. https://digitalcommons.unl.edu/libphilprac/1052
14. Weiser, E. B. (2000). Gender differences in Internet use patterns and Internet application preferences: A two-sample comparison. CyberPsychology & Behavior, 3(2), 167–178. https://doi.org/10.1089/109493100316012
15. Ann, M., & Maltby, J. (2013). Impact of the Internet on our lives: Male and female personal perspectives. Computers in Human Behavior, 24(5), 2005–201.
16. Hu, T., et al. (2012). An examination of gender differences among college students in their usage perceptions of the Internet. Education and Information Technologies, 17(3). https://doi.org/10.1007/s10639-011-9160-1
17. Nachmias, R., Mioduser, D., & Shemla, F. (2000). Internet usage by students in an Israeli high school. Journal of Educational Computing Research.
18. DataReportal. (2021). Digital 2021: Global overview report. https://datareportal.com/reports/digital-2021-global-overview-report
19. Shaw, L. H., & Gant, L. M. (2002). Users divided? Exploring the gender gap in Internet use. CyberPsychology & Behavior, 5(6), 517–527.