SOCIAL NETWORKING USAGE, ACADEMIC PROCRASTINATION AND PERFORMANCE AMONG UNIVERSITY STUDENTS: ROLE OF SELF EFFICACY AND METACOGNITIVE BELIEFS

A

Thesis

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By

LIYAQAT BASHIR

(11512050)

Supervised By

Dr. SAVITA GUPTA

LOVELY FACULTY OF BUSINESS AND APPLIED ARTS
LOVELY PROFESSIONAL UNIVERSITY
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DECLARATION

I Liyaqat Bashir hereby declare that the thesis entitled **"*Social Networking Usage, Academic Procrastination and Performance among University Students: Role of Self Efficacy and Metacognitive Beliefs"*** submitted to Lovely Professional University for the award of Degree Doctor of Philosophy in Education, is my original research work and has been prepared by me in School of Education at Lovely Professional University under the supervision of Dr. Savita Gupta, Associate Professor, Lovely Professional University. No part of this thesis has formed the basis for the award of any degree or fellowship previously.

Liyaqat Bashir

(Investigator)

School of Education,

Lovely Professional University,

Phagwara, Punjab (India)

Dated:

CERTIFICATE

I certify that Liyaqat Bashir has prepared his thesis entitled, **"*Social Networking Usage, Academic Procrastination and Performance among University Students: Role of Self Efficacy and Metacognitive Beliefs"*** for the award of Ph.D. degree of the Lovely Professional University, under my guidance. He has carried out the work at the School of Education, Lovely Professional University, Phagwara, Punjab.

Dr. Savita Gupta

(Supervisor)

Associate Professor,

Faculty of Education,

Lovely Professional University,

Phagwara, Punjab (India)

Date:

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Dated: **Liyaqat Bashir**

ABSTRACT

Education is the development of all those capacities in the individual which will enable him to control his environment, fulfill the possibilities, humanizes and make the life of the people progressive, cultured and civilized.

Now a day's technology is moving very fast and due to the competitive environment the mindset of the students is changing fast. Students seek more suitability, time expenditures and lower cost, and freedom from problematic procedures and cumbersome. A delicate change is happening in our society. We are becoming a "dot com" nation. We are making new paths of communication, sharing information, doing business, both public and personal. As a society, we are changing. It is the social networking platform, best powerful creation of the era, which creates everything conceivable in all manners. Social networking usage and academic procrastination is one of the main fields of research and its effects on academic performance of students are one of the widest research fields of modern age. It is important to continue searching for mechanisms that decrease its effects on students' performance through social networking. Metacognitive beliefs and self-efficacy are two major categories of cognitive sciences which their role has been considered in the study. Self-efficacy and metacognitive beliefs are the core competencies an individual possesses that enable them to cope with the difficulties in academia. For this purpose, a humble attempt was made by the investigator to explore the role of self-efficacy and metacognitive beliefs on social networking usage with academic procrastination and performance among university students in Jammu and Kashmir.

The present study was conducted to study the Social Networking Usage, Academic Procrastination and Performance among University Students: Role of Self Efficacy and Metacognitive Beliefs. Descriptive survey method was used in this study. The sample of the study consisted of 1152 university students were selected from Jammu and Kashmir by using Multistage Sampling Technique. The objectives were: to study the pattern of social networking usage among university students; to study the level of academic

procrastination and self-efficacy among university students; to study the relationship of social networking usage with academic procrastination and performance among university students; to find out the significant differences among university students in their social networking usage, academic procrastination, performance, self-efficacy and metacognitive beliefs on the basis of gender and stream; to study the role of self-efficacy and metacognitive beliefs on relationship of social networking usage with academic procrastination and performance among university students. The Social Networking Usage Questionnaire (Self Standardized), Academic Procrastination (Self Standardized), Self Efficacy Scale Standardized by Arun Kumar Singh and Shruti Narain (2014) and Metacognitive Beliefs Questionnaire constructed by Wells & Cartwright-Hatton (2004) were used. The data was analyzed by using percentage, Annova (Two way), Pearsons Coefficient of correlation and Structural Equation Modeling. The results of the study concluded that percentage-wise distribution of overall sample on different pattern of social networking usage, that large portion of respondents' use social networking for more than 1 year but less than 2 years. Similarly, it was unveiled that for domain wise distribution majority of male university students are using social networking for more than 3 years but less than 4 years. In case of female university students' large portion of respondents used social networking for more than 1 years but less than 2 years. Moreover, in case of stream wise majority of arts university students are using social networking for more than 3 years but less than 4 years same is the case for science and commerce students. In case of how often social networking sites are used by the users. In total, this indicates that the large portion of respondents use social networking several times a day. In domain wise distribution majority of male university students are using social networking for several times a day and female university students are using social networking once in a day. Further, in case of stream wise majority of arts university students are using social networking for several times a day and same is the case for science and commerce students. In case of average time spent on social networking sites in a day, the percentage-wise distribution of overall sample on different pattern of social networking usage showed that the large portion of respondents spending time on social

networking for more than 1 hours but less than 2 hours. In domain wise distribution majority of male university students are spending time on social networking for more than 4 hours. Majority of female university students are spending time on social networking for more than 1 hour but less than 2 hours. In case of stream wise arts university students show that large portion of respondents spending time on social networking for more than 4 hours, same is the case for science and commerce students. In case of preferred time for social networking in a day. In total it is corroborated that the large portion of respondents using social networking in the late night. In domain wise distribution majority of male university students are using social networking in the evening. In case of female university students showed that large portion of respondents are using social networking in the late night. Further, in case of stream wise arts university students showed that large portion of respondents are using social networking in the evening same is the case for science and commerce students. In case of frequency of the social networking sites usage. In total, it was found that WhatsApp is most frequently used social networking site for university students. In domain wise distribution Facebook is most frequently used social networking site by the male students as well as female students. In case of stream wise it was indicates that WhtasApp is most frequently used by arts students, for science students YouTube is most frequently used social networking site same is the case for commerce students. Further, percentage-wise distribution of overall sample on different levels of academic procrastination showed that the highest percentage of university students falls under extremely high level of academic procrastination. In gender wise distribution of academic procrastination showed that both male and female university students falls under moderate level of academic procrastination. In stream wise distribution of academic procrastination showed that majority of arts university student's falls under moderate level of academic procrastination same is the case for science and commerce students. For self-efficacy, percentage-wise distribution of overall sample on different levels of self-efficacy showed that the highest percentage of university students falls under average level of self-efficacy. In gender wise distribution of self-efficacy showed that both male and female

university student's falls under average level self-efficacy. In stream wise distribution of self-efficacy showed that the majority of arts university student's falls under average level of self-efficacy and same is the case for science and commerce students. After analyzing the relationship of social networking usage with academic procrastination among university students, the results revealed that there exists a statistically significant relationship between social networking usage and academic procrastination. Further, the analysis revealed that, there exists significant positive relationship between social networking usage with performance among university students.

The comparative analyses, on the basis of gender, the results indicate that both male and female university students do not differ significantly in their social networking usage. There exists no significant difference in social networking usage among university students on the basis of stream. The analysis revealed that there is no significant interaction effect of gender and stream on social networking usage of university students. So it indicates that interaction effect between gender and stream works independently and do not influence social networking usage of university students. For academic procrastination, the results indicate that male and female university student differ significantly in their academic procrastination. So findings revealed that female students are more involved in academic procrastination as compared to male counterparts. In case of streams, there exists significant difference in academic procrastination among university students on the basis of stream. So it means that students of different streams i.e. art, science and commerce differ significantly in their academic procrastination. The findings established that there is no significant interaction effect of gender and stream on academic procrastination of university students. So it indicates that interaction effect between gender and stream works independently. For performance, on the basis of gender, there exists significant difference between male and female university students in their performance. In case of streams, there exists no significant difference in performance among university students on the basis of stream. Further, the analysis revealed that there is no significant interaction effect of gender and stream on performance of university students. For self-efficacy, the results indicate that

both male and female university student differ significantly in their self-efficacy. In case of streams, there exists significant difference in self-efficacy among university students on the basis of stream. The findings established that there is no significant interaction effect of gender and stream on self-efficacy of university students. For metacognitive beliefs, the results indicate that both male and female university students do not differ significantly in their metacognitive beliefs. In case of streams, there exists no significant difference in metacognitive beliefs among university students on the basis of stream. Further, the analysis revealed that there is no significant interaction effect of gender and stream on metacognitive beliefs of university students.

In addition, the analysis revealed that there exists significant role of self-efficacy on relationship of social networking usage with academic procrastination among university students. It was revealed that there exists significant role of self-efficacy on relationship of social networking usage with performance among university. It was found that there exists significant role of metacognitive beliefs on relationship of social networking usage with academic procrastination among university students. It was established that there exists significant role of metacognitive beliefs on relationship of social networking usage with performance among university students. Moreover, the result indicated that there exists significant role of self-efficacy and metacognitive beliefs on relationship of social networking usage with academic procrastination and performance among university students.

Keywords: *Social Networking Usage, Academic Procrastination, Performance, Self Efficacy, Metacognitive Beliefs, University Students*

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Networking Usage with Academic Procrastination and Performance

ACRONYMS

ACRONYMS	DESCRIPTION
ICT	Information, Communication and Technology
SNSs	Social Networking Sites
SPSS	Statistical Package for the Social Sciences
EFA	Exploratory Factor Analysis
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
GFI	Goodness Fit Index
AGFI	Adjusted Goodness of Fit Index
RMSEA	Root Mean Square of Approximation
*	Significant at 0.05 level
**	Significant at 0.01 level
Sig.	Significant
%	Percent
ANOVA	Analysis of Variance
Df	Degree of Freedom
N	Number of Individuals
R	Coefficient of Correlation
SEM	Structural Equation Modelling

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Education is the development of all those capacities in the individual which will enable him to control his environment, fulfill the possibilities, humanizes and make the life of the people progressive, cultured and civilized.

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efficacy. In gender wise distribution of self-efficacy showed that both male and female university student's falls under average level self-efficacy. In stream wise distribution of self-efficacy showed that the majority of arts university student's falls under average level of self-efficacy and same is the case for science and commerce students. After analyzing the relationship of social networking usage with academic procrastination among university students, the results revealed that there exists a statistically significant relationship between social networking usage and academic procrastination. Further, the analysis revealed that, there exists significant positive relationship between social networking usage with performance among university students.

The comparative analyses, on the basis of gender, the results indicate that both male and female university students do not differ significantly in their social networking usage. There exists no significant difference in social networking usage among university students on the basis of stream. The analysis revealed that there is no significant interaction effect of gender and stream on social networking usage of university students. So it indicates that interaction effect between gender and stream works independently and do not influence social networking usage of university students. For academic procrastination, the results indicate that male and female university student differ significantly in their academic procrastination. So findings revealed that female students are more involved in academic procrastination as compared to male counterparts. In case of streams, there exists significant difference in academic procrastination among university students on the basis of stream. So it means that students of different streams i.e. art, science and commerce differ significantly in their academic procrastination. The findings established that there is no significant interaction effect of gender and stream on academic procrastination of university students. So it indicates that interaction effect between gender and stream works independently. For performance, on the basis of gender, there exists significant difference between male and female university students in their performance. In case of streams, there exists no significant difference in performance among university students on the basis of stream. Further, the analysis revealed that there is no significant interaction effect of gender and

stream on performance of university students. For self-efficacy, the results indicate that both male and female university student differ significantly in their self-efficacy. In case of streams, there exists significant difference in self-efficacy among university students on the basis of stream. The findings established that there is no significant interaction effect of gender and stream on self-efficacy of university students. For metacognitive beliefs, the results indicate that both male and female university students do not differ significantly in their metacognitive beliefs. In case of streams, there exists no significant difference in metacognitive beliefs among university students on the basis of stream. Further, the analysis revealed that there is no significant interaction effect of gender and stream on metacognitive beliefs of university students.

In addition, the analysis revealed that there exists significant role of self-efficacy on relationship of social networking usage with academic procrastination among university students. It was revealed that there exists significant role of self-efficacy on relationship of social networking usage with performance among university. It was found that there exists significant role of metacognitive beliefs on relationship of social networking usage with academic procrastination among university students. It was established that there exists significant role of metacognitive beliefs on relationship of social networking usage with performance among university students. Moreover, the result indicated that there exists significant role of self-efficacy and metacognitive beliefs on relationship of social networking usage with academic procrastination and performance among university students.

Keywords: *Social Networking Usage, Academic Procrastination, Performance, Self Efficacy, Metacognitive Beliefs, University Students*

CHAPTER I

THEORETICAL ORIENTATION OF THE PROBLEM

INTRODUCTION

The time is changing rapidly by the progress of Information and Communication Technology (ICT), which is evolving as the best source to analyze the extensive information. The two-third internet using population in the world visits social media websites, serving as a communication and connection source. Social network websites are online platform of users to communicate with others for academic, personal, business, purposes (Williams et al., 2009). Social network websites have transformed the thought of whole world into global village. Through social media millions of individuals exchange information via few clicks. Various welfares have been carried out by using social networking platforms in the remote areas where we cannot reach physically. The development in the internet has created an enormous impact especially on students. Most of the social networking sites focus on the building and strengthening the relationship between the users who share similar interests and activities. The most popular of social networking allows its users to save their profiles and friend lists and also recommends its users to share the personal knowledge and interests or activities through picture, videos, posts etc.

In the previous years of the 20th century, India has perceived a rapid and remarkable development in ICT. In this period, "communication" has appeared as the greatest common term. Now a days the communication revolution has taken people together disregarding of geographical boundaries. The conception of the Internet has undeniably influenced the billions of peoples the way they interact, communicate, and collect information. People are using the Internet to send emails, research, download music or movies, play games, check news, buy products, conduct businesses and involve in various other tasks. The Internet is used to be remaining in touch with friends and family, search for partners, and seek emotional support.

In today's highly digitized ecosystem social media and social networks are playing an indispensible role in higher education. The educational field has completely transformed ever since the Internet and technology are included in the equation. Social network platforms provide ample of opportunities for educators for communication between administrators their colleagues and students. Using social networking sites, teachers can improve the involvement of their students in classrooms, technological abilities, communication skill and a great sense of collaboration. It is a proven fact that social media is a very important tool for teaching and learning when used in a proper way. Some example of the social network platforms namely Twitter, Facebook, Google Plus and open social practices like blogging can be used in learning for the convenient communication with the topic and subject matter experts as well as with students.

1.1 SOCIAL NETWORKING USAGE

In order to trace the origin of social networking sites (SNSs) we need to know about its conception from every angle. Social networking has been at the core of all online activity since the delivery of the first "email" in 1969. However, SNSs scholars allude the first familiar social networking website SixDegrees.com established in 1997 that permitted users to make profiles, surf the friends lists and list their Friends. The next upsurge of social networking sites began with Ryze.com in 2001 to support people to advantage their commercial services. Similarly, LinkedIn became an influential business networks after that Friendster became the most important SNS. Many new SNSs were launched from 2003 for several popular interests. Teenagers showed much interest in MySpace in 2004. In case of Facebook that began in early 2004 as a Harvard-only social networking sites, later expanded to contain school students, professionals and eventually everyone else inside its corporate networks in the year 2005. As a result, number of users increased in Facebook to the level of highly populated portals like that of population of China and India. Among social network media, 63.46% use Facebook next to Youtube and Orkut.

Social networking site are a type of virtual community which has gained enormous popularity. These sites have won over the hearts of all people regardless of age, color and creed. Social Network Sites emerged as a form of online communities during the outbreak of Social Web. The Internet has brought various types of information sharing systems, containing the Web. In recent times, online social networking has gained substantial attractiveness and is now amongst the utmost widespread websites on the Web. Due to the growing of different applications like as wikis, blogs, instant messaging, and a multiplicity of social networking facilities, nowadays people can interact and connect through SNS (Dutton, & Gennaro 2007). Social networking is still very greatly in its beginning, yet it already forms the basis for certain extremely widespread applications.

Universally, SNSs research has epitomized on "impression management and friendship performance, networks and network structure, online/offline connections, and privacy issues". In addition, "MySpace and Facebook enable youths to socialize with their friends even when they are unable to gather in unmediated situations, SNSs are 'networked publics' that support sociability, just as unmediated public spaces do" (Boyd & Ellison, 2007). Thus, the synthesis of social and media networks will bring into existence a very strong distinct infrastructure for our society (Dijk, 2006). Besides, the wave of social network service is an offshoot of modern internet communication technology of the 21st century culture. It is the product of political, economic, social and cultural milieu of the media world. The virtual technology has opened wider possibilities and its discovery put into use in array of fields.

Social networking as a communication tool is increasing quickly, especially in the prosperous expansion of applications for smart phones. Students are becoming familiar to sharing their experiences and daily life activities, talking about their interests, keeping in touch with family and friends online (Morahan-Martin & Schumacher2003; Leung 2002). Online social collaboration has become the primary use for home computers in terms of time spent (Schumacher & Morahan-Martin 2003; Artzi & Hamburger 2003). In the midst of all these social activities, individuals are handling relations through the social

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networking with those they originally met in real life (Park et al., 2009; Ledbetter et al., 2011). Online social network sites afford a multipurpose stage where students getting each other online to share information; inconsistencies exist in deciding the association among the student's well-being and social networking. Various researches has recommended that social networking usage such as Facebook may make people feel isolated or users may obtain adverse reactions from other people (Park et al., 2009; Ledbetter et al., 2011; Forest & Wood 2012).

Social networking is the web of people. People within these networks are associated when they have any certain relationship with each other (Haythornthwaite, 1996). In the past era, SNS have become a main stream cultural phenomenon (Boyd & Ellions, 2007). They have shown beneficial for everything from keeping in touch with friends to dating, political activism, research collaboration, and education. Social networking sites have rapidly spread throughout the globe. Social networking sites are considered a significant uprising of the Internet after Google (IECD, 2007). A social networking site is the first platform in which people can openly coherent their social networks (Rau et al., 2008). The number of social networking sites has radically increased in recent years (Wen, & Kwon 2010).

Conferring to Ellison & Boyd (2007) social network website is a web based facility which permits individuals to sign up in a confined system, articulating group of individuals within the similar system so as to share academic related or personal information This specifies that social network sites entails a place where individuals attach with each other and share mutual matters concerning to politics, sports, academics, or relationship. Though, Ellison & Boyd (2007) argue that applicants from few social network sites are not primarily there to connect with individuals they are not accustomed with, rather they sign up to join and catch up with loss but found offline friends as well as close ones. According to Corich et al. (2004) states that social networking sites as a set of patterns and images of E-communication through the Internet, in which through can send topics or questions as well as responses to often asked topics, or any answers related that. Kim (2010) defines social networking sites is to participate in content that is created by

the user and is that facilitate for individuals forming virtual communities. Moreover, William (2011) states that "social networking sites is an online community of Internet users who want to communicate with other users about areas of mutual interest".

1.1.1 Usage of social networking by students

The most common users of the social networking sites are youths who are called as 'Digital Natives' (Prensky, 2001) particularly the majority are students at university level. They frequently use social networking sites to remain in connection with friends or boost surviving networks than increasing new relationships (Lampe et al., 2007). Further it was also noticed that the social networking sites might be a probable source to increase more recognition of online learning than traditional e-learning platform, if the complicated designed actions can be narrowly combined into the features of social networking websites. A social networking website confesses students to collect profiles, to communicate, and express themselves, that highlight their experiences and talents. Investigators have understood the necessity to integrate this into the learning facilities as a source to support the learning communications between faculties, and students, however higher education institutions have tried avoiding students from using technologies which is of less significant to their academic advantage (Roblyer, 2010). Therefore educational institutions should think to evolve methods that assimilate social networking sites for educational context. So that it will improve an academic environment to inspire students communications as it relates to their studies. Contingent on the classification of social networking websites been thought of, the idea has a much more of optimistic characteristics and will boost higher recognition rates amongst students. An email is a acquainted technology that lecturers previously accept in swapping educational mails among them and students. Though, the recommended use is a accustomed conversation tool. What is left is for management to involve in a well thought out approach to inculcate this technology as an authorized way of communicating with faculties and students. Moreover, social networking sites technology is alike to webmail communication technology. Stollak et al. (2011) examined a study and

established that majority of students (77.2%) spent more than 30 minutes a day, and Facebook (78.3%) was frequently used social networking sites. Moreover, 75% school and college students are internet users (Internet and Mobile Association of India, 2011)**.** In a similar way Manjunatha (2013), found that 80% students surfing large amount of time regularly on social networking sites, 62.6% college going students surfacing 10 hours per week on social networking usage and 17.5% of students surfing more than 10 hours per week of their time on social networking usage in India. Singh and Kumar (2013**)** found that the social networking usage among research students. The result indicated that most of the participants were found to be conscious and using social networking for their research purpose. Further, the result showed that Facebook is the greatest widespread social networking amongst the research scholars. Helou et al. (2014) investigated social networking with academic performance among university students and explored the student's opinions regarding social networking and its impact on academic performance. The results indicated that most of the students agreed that there is a positive influence of social networking sites on academic performance of students. Ahmed et al. (2011**)** investigated a study on social networking with academic performance among students. Result showed that social networking sites have positive impact on academic performance because students fulfill their study necessities successfully and manage their time effectively.

1.1.2 Status of Social Networking Usage dissemination – India & Worldwide

Social networking usage is involving the world with easy access and propagation. One of the Emarketer (2016) emphasized that "approximately 32% of the global population and 68.3% of internet users will access a social network regularly in 2016, up 9.2% from 2015". The data presented by statista (2018) in figure 1.1 indicated the worldwide users of social networking usage and expected growth in coming years. According to the data, more than 3 billion people are using social networking sites globally and this number is expected to increase by 4 billion till 2022. EMarketer (2016)

also reported that by 2020, the accessibility of social networking usage will expand to nearly 86% of global users.

Figure 1. 1: Social Networking users worldwide from 2010 to 2021 (Statista, 2018)
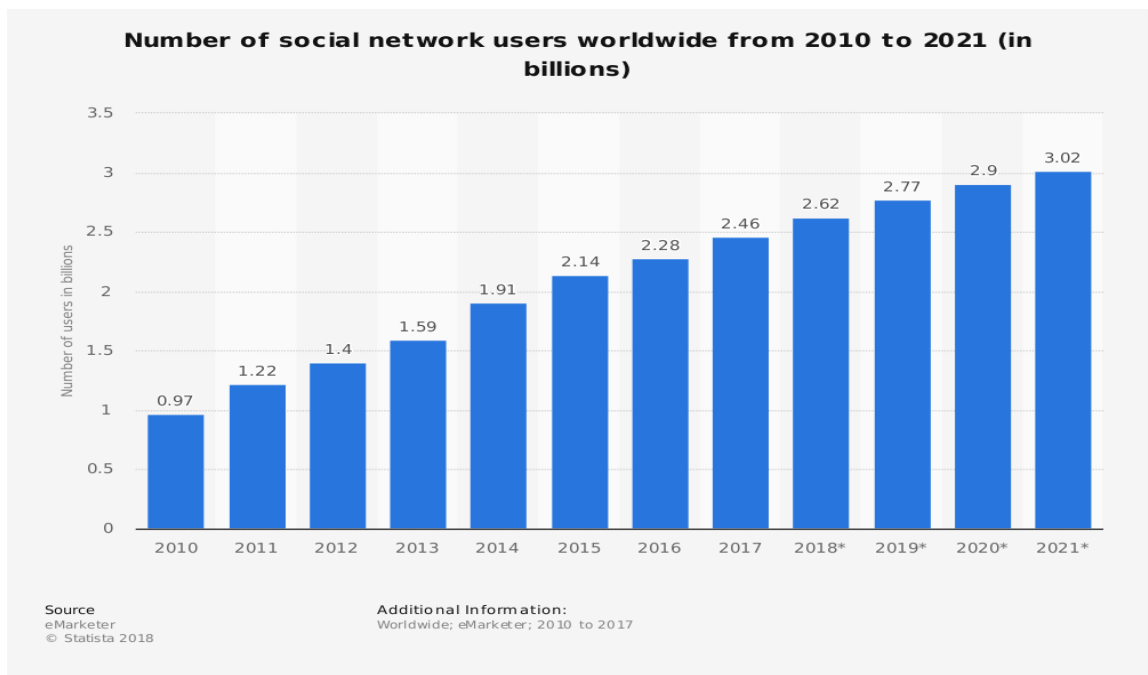
Figure 1.2 statistics shows the number of social networking users in India from 2015 to 2022. In 2019, it is expected that there will be around 258.27 million social networking users in India, up from close to 292 million in 2020. The most popular social networking sites in India were YouTube and Facebook, followed by social networking app WhatsApp. Facebook is projected to reach close to 336 million users in in India by 2021.

Figure 1. 2: Social Networking users in India from 2016 to 2021 (Statista, 2018)

Number of social network users in India from 2015 to 2022 (in millions)

- 2015: 142.23
- 2016: 168.1
- 2017*: 196.02
- 2018*: 226.06
- 2019*: 258.27
- 2020*: 292.43
- 2021*: 336.18
- 2022*: 370.77

Number of users in millions

Sources
Statista; Statista DMO
© Statista 2018

Additional Information:
India; Statista DMO; 2015 to 2017; internet users who use a social network site via any device at least once per
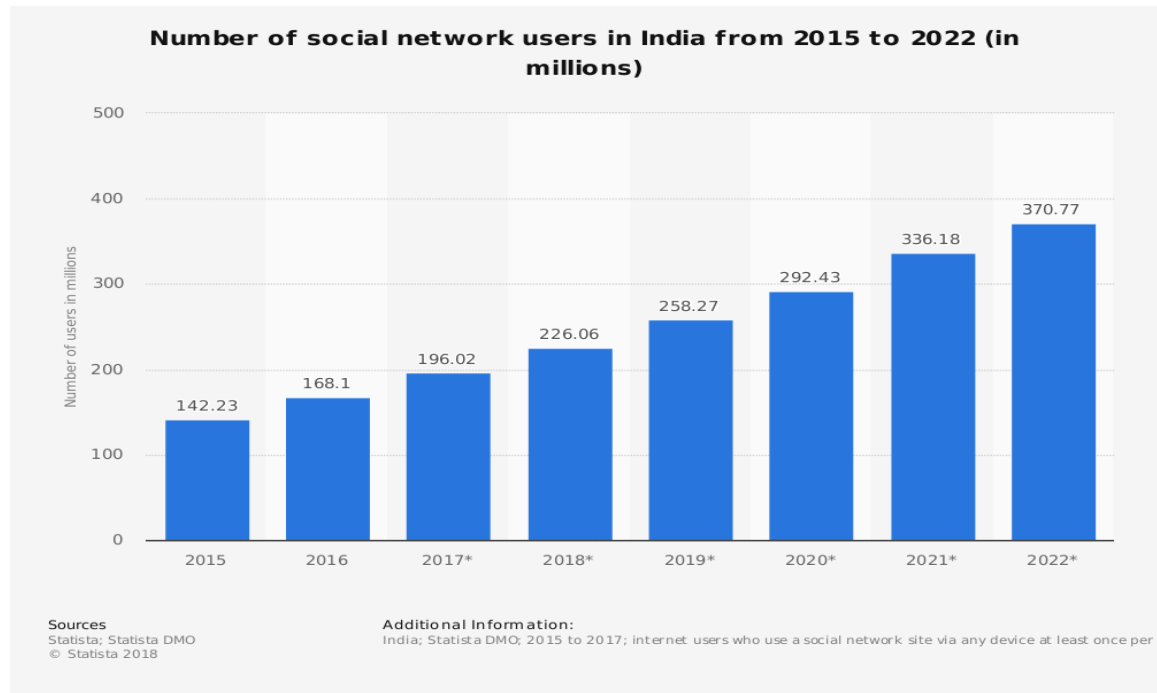
The internet besides search information has many other features as well. Individuals revealed about their usage of internet which helps them to connect with the outer world, be it can commercial or business determination, for academic determination, make new friends, long lost relatives and revive old friends. The advent of social networking usage abridge the entire procedure as majority of them are easier to use and navigate, free to use, it does not need experience and knowledge of the internet and are prepared up of a varied array of diverse topics and setups, it helps the users to operate these sites much easily. Presently, there are lots of social networking websites that can induce billions of individuals, with varied technological affordances. Almost all websites allow individuals to gain pre-existing networks and pledge friendships among unknown persons. Social networking websites are a necessity for the internet community to remain in touch with one another. To make the experiences more pleasurable many specified social networking websites restrict the number of users which can take part in their network. The social networking sites which have restricted users, deliberately confine

their network to the more appropriate people to make their network more pleasurable for their users. That is the reason mostly students prefer such type of social networks which suits their social life. Social networking websites are also being used by students and teachers particularly as a tool for communication. Schools and colleges have also taken the social networking platforms such as Facebook, Whatsapp, and Twitter etc. to make the academic announcements and share important information to the students and the same way students are also taking these platforms to interact back to their teachers.

1.1.3 Examples of Social Networking Sites Usage

Facebook

Now a days Facebook being the most popular social networking site of the current time. In the year 2004 Mark Zuckerberg of Harvard University developed it. It was actually created for university and college students as a manner to connect with each other. Facebook crossed 1.94 billion active users in the year 2017.

Twitter

Twitter is also gaining popularity among the masses very rapidly. It is currently one of the most trending social site. With very simple service it was launched in the year 2006. It is actual communication website. Its users can generate an account, send and receive messages to other contacts in the network. Further, users can follow other member's posts and bidding others to receive Tweets.

LinkedIn

LinkedIn is a popular social networking site for professional networking. It is established in the year 2002, and launched in the year 2003. The site is accessible in 24 languages and has over 400 million users. LinkedIn is great for people viewing to attach with people in alike industries, showing business related statistics and information, and networking with local professionals.

Google+

Google+ has its own place amongst the most popular social networking sites. It was established on December 15, 2011, It has 418 active million users as of December

2015. It helps us to stay connected with our friends and family and also helps us in discovering new interesting people and events.

YouTube

It was founded on February 14, 2005, by three former PayPal employees. It permits users to view, upload, share, rate, report, subscribe to other users, add to favorites, and comment on videos. It is the best widespread and largest video-based social networking site. In November 2006 Google bought it. It the second utmost popular search engine after Google. It has above one billion website users per month.

Instagram

It is a visual social network site. The website founded on October 6, 2010, and has more than 400 million active users and is possessed by Facebook. Numerous of its users use it to post information about fashion, food, travel, art and related subjects. The website is also illustrious by its sole screens composed with photo and video editing features. Nearly 95 percent of Instagram users also use Facebook.

WhatsApp

It is a cross-platform and freeware messaging website. It allows users to send texts, documents, images, video and audio messages to other users that have the app installed on their devices. It was established in January 2010. It was owned by Facebook on February 19, 2004. Now a day's more than one billion people use the service to communicate with their loved ones, friends, and even customers.

Figure 1.3: Top active Social Networking Sites (Kemp, 2016)
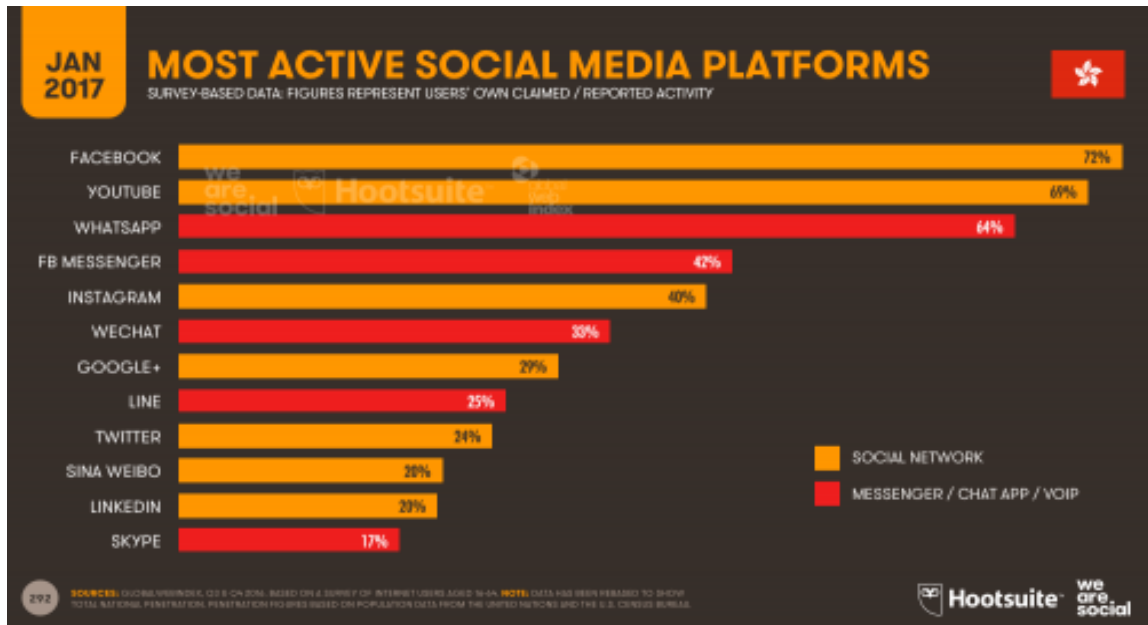
Srivastava et al. (2013) investigated that social media like as Twitter, Facebook, MySpace and Orkut on psychological well-being among students. Results indicated that eighty eight percent boys and seventy five percent girls, ninety percent (19 years old) of adolescents and ninety two percent (20 years old) of adolescents were engaged in Facebook site. Sixty two percent boys, forty eight percent girls, fifty six percent (19 years old) of adolescents and fifty eight percent (20 years old) of adolescents were engaged in Twitter site. Gender and Age of the respondents indicated significant relationship with social media. Those who are using twitter and Facebook revealed that their exists significant correlation with psychological well-being than MySpace and Orkut users. Similarly Naeemi, et al. (2014) carried out a study on Facebook with psychological wellbeing among students. The results indicated that information seeking has negative relationship with psychological well-being but organizing events and connectivity on Facebook has positive relationship with psychological well-being.

Unachukwu et al. (2016) studied the influence of social network usage with academic achievement of students. The results showed that secondary school students are not heavy users of social network that they use it mostly for entertainment, and that it is negatively affecting on their academic achievement. According to results it is suggested that school administrators and teachers should ensure that students are educated on the responsible use of social network and also sensitized on its possible negative influence on their academic achievement. In similar lines Mustafa et al. (2016) examined the various categories of SNS use including creating knowledge and information content, chatting and online discussion, entertainment and enjoyment and file sharing by tertiary students at a university level. Based on the findings, enjoyment and entertainment, online discussion and chatting, information content and creating knowledge positively and significantly related with students learning.

Dogan and Kaya (2016) studied on Internet addiction, shame and social network usage among college students. The result indicated that shame predicts social network usage positively and significantly. Furthermore, a result indicated that in the presence of internet addiction that shame did not predicts social network usage. Moreover, based on the analysis Internet addiction is a significant predictor of social networking site usage. Gangadharbatla (2008) investigated the influence of college student's collective self-esteem, Internet self-efficacy, need to belong, and need for cognition on their attitude toward social networking sites. Collective self-esteem, need to belong, Internet self-efficacy has positive influence on attitudes towards social networking sites. Likewise, attitude towards social networking sites mediates the association among willingness to join social networking sites and need to belong and Internet self-efficacy. In addition there is partial mediation among collective self-esteem and willingness to join. Wang et al. (2012) examined the relationship among the, self-esteem, sensation seeking, narcissism, individual's use of specific features of social networking sites and big five personality factors. The results indicated that personality factors play a significant role in how social networking sites are used. Specially, Agreeable persons tend to make more comments on others profiles. Neurotic are more likely to use the feature of status update

as a way of self-expression. Extraverts adding more friends, comment, and status update and are more likely to use the communicative function of social networking sites. Further, Narcissistic users update status more frequently for self-presentation and upload their attractive photos on social networking sites. Individuals with having high self-esteem are more likely to comment on others profiles. Users scoring high on openness and sensation seeking are more likely to play online games on social networking sites. Moreover, results showed that gender also played a significant character in envisaging types of social networking sites used. Males were more likely to play online games than were female counterparts and have more social networking sites friends, who were more likely to update their status and upload self-photos.

Tham et al. (2011) investigated the implications and social networking usage between students. The study was conducted on the respondents of 445 college students on social networking sites use, awareness of the impacts of social networking sites, communications, and perceptions of social networking sites in personal development and academic performance. The results showed that there were significant relationships among field of study, the influence of social networking sites and users class rank. Further, there exists negative correlations among social networking sites usage rate, awareness of others improved search for a date and student's search for volunteer opportunities, while a positive correlations in social networking sites usage rate and student's networking with professionals, family members, and friends. Derakhshi et al. (2018) investigated role of social networks on exam anxiety and academic procrastination. The sample of the study was 341 university students. The result indicated that there exists significant and positive correlation among social networking usage and anxiety and academic procrastination. Further there exists an insignificant difference among male and female students in the anxiety and academic procrastination. Moreover results also showed that boys use social networks less as compared to female counterparts. Similarly, Leyrer-Jackson, et al. (2018) examined the use of social media and its impact on academic performance of students. The result indicated that male students used social-media sites less often than female counterparts. Moreover, results

also showed that grade point average with social-media sites correlated negatively. Hassell et al. (2016) examined the association among social media use with academic outcome and attitudes. The sample of the study was 234 undergraduate students. The results showed that the uses of social media were negatively related with academic performance as well as with academic self-efficacy beliefs. Social media and life satisfaction were negatively correlated and there is a mediation of academic self-efficacy beliefs. Similarly, El-Badawy et al. (2014) examined the influence of social media on the academic development of students. It was found that there exists no relationship among social media and academic performance of students. In similar line another study by Maqableh et al. (2015) studied the impact of social networking sites with academic performance of students. This study explores what degree and to how the use of SNS effects on the academic performance of students. The participants of the study were 366 students. The results indicated that significant impact of SNS on the academic performance of students. There was also significant impact of social networking sites use per week on the academic performance of students, however there exists a no significant differences in the effect of use of social networking sites on academic performance due to use per day to most used sites, due to age, and academic achievement.

Alwagait et al. (2015) investigated the social networking usage and their academic performance among university students. The study was based on 108 respondents. The results confirmed that there exists a no significant relationship among social media usage in a grade point average score and in a week. Students emphasized that in addition social media use, time management is a reason which impacts negatively in student's studies. Gupta, (2018) examined that social media using in higher education, enhancing students' learning and engagement. The results showed that encouraging the use of social media for education related purposes has positive effect on student's engagement and on student's academic performance. Al-Rahmi et al. (2018) examined that use of social media and its impact on student's learning performance. The results showed that female and male student's social media usage satisfaction for engagement and collaborative learning affected positively their learning performance, and for females,

they are not satisfied with perceived usefulness and ease of use. Further it was unveiled that engagement and active collaborative learning by social media assists group discussions and enhances the students learning activities, and hence their use should be cheered in teaching processes and learning in higher education institutions. Another study conducted on social networking sites on the academic activities of students by Olaleke et al. (2015). The respondents of the study were 100 students. The results showed that social networking sites are frequently visited by students on a daily basis. Facebook is the most visited social networking sites between students. The study had shown that female students using social networking sites more than their male students. Moreover, results showed that social networking sites are used for, communication, academic and entertainment purposes. In addition results showed that social networking sites used by most of the students for communication than for academic purpose. Though the study revealed that social networking sites can be used to enhance student's learning abilities and reading skills through communications with proficient colleagues and professionals. Abdurahman, et al. (2019) carried out a study with non-academic performance and academic performance among students. The sample of the study was 331 students. The results showed that social network with non-academic performance and academic performance correlated positively. Moreover, academic performance and non-academic engagement correlated positively.

1.2 ACADEMIC PROCRASTINATION

Academic procrastination is being highly predominant. We also have the habit of delaying and most of us have also made it a way of life. People who procrastinate probably believe in the phrase "The sooner I fall behind, the more time I have to catch up." Procrastination being our longtime companion and it has manifested itself under a number of cultures and conditions. It signifies our intimate part of our human nature. It always finds a way equally in both developed and underdeveloped economies. The frequency of procrastination has increased now as compared to earlier times. Steel reports (2002), "when we first started measuring procrastination (in 1978), about 15% of the

population said they procrastinate somewhat and about 1 % indicated they often procrastinate. In 2002, about 60% of the population said they procrastinate somewhat and about 6% indicated they often procrastinate. Despite this increase historical references indicate that it is a prevalent problem".

However, Milgram et al. (1992) wrote the first historical analysis on this topic, ''Procrastination: A malady of Modern time**.** Ferrari, Johanson, & McCown (1995) believed that procrastination existed longtime ago back in history but it effected with the onset of industrial revolution around 1750. Before that time procrastination was believed to be neutral and could have been interpreted as a wise course of action. We have found examples from ancient Roman and Egyptian civilizations that authors believed in the concept of postponement as being wise and useful as cited in Ferrari et al., (1995). Avoiding unnecessary work and demonstrating patience are the examples of procrastination. It didn't had any negative impacts until the mid of 18th century. It was concluded with the quote "that as economics become large and more complex, words related to the concept of task avoidance become more negatively imbued with meaning".

1.2.1 Concept of Academic Procrastination

The word procrastination has originated from Latin words of "pro", means "forth, in favour of' or forward and "crastinus" means "of tomorrow". Various attempts have been made to define procrastination. All these definitions are more or less complementary to each other rather than contradictory, each adding a new perspective to the concept of procrastination. According to Morris (1978), "Procrastination is the act of putting off doing something until a future date, postponing or delaying needlessly". According to Lay (1986), procrastination is, "the tendency to postpone that which is necessary to reach some goal". Solomon and Rothblum (1984) defined procrastination as "the act of needlessly delaying tasks to the point of experiencing subjective discomfort". According to Senecal, Koestner & Vallerand (1995), "Procrastination typically involves delaying the start of a task until one experiences distress about not having performed the

activity earlier". Olfason and Wadkins (2007) describe procrastination as a deliberate delay in taking action or fulfilling a task.

Academic procrastination is a superior usage of procrastination that happens in the educational settings. It comprises discerning that one needs to undertake an academic activity, or carry out an academic task, like as undertaking the weekly reading assignments, finishing a school related project, preparing for exams, or writing a term paper, as a matter of fact failing to encourage oneself to do so within the probable time frame (Gross & Ackerman, 2005). Conferring to Rothblum, et al. (1986) describes that academic procrastination as the occasional or continuous delay of academic duties. Moreover, Dryden (2012) states that academic procrastination is a problem perceived in areas like as doing homework, handling meetings, studying for exams or projects with academic counselor. Further, Schraw, et al. (2007) states that academic procrastination as "intentionally delaying or deferring work that must be completed". In a similar way academic procrastination can be described as the delaying of academic tasks to the point where optimum achievement turn into highly unlikely, resulting in a state of psychological distress (Ferrari, Johnson, & McCown, 1995; Ellis & Knaus, 1977). Further, Ellis and Knaus (1977) assessed that around 95% of students procrastinate on their educational tasks. Rothblum and Solomon (1984) concluded that 46% of the surveyed "nearly always or always procrastinate on writing a term paper". Also, Sullivan, & Mensink, Day, (2000) reported that 50% students procrastinate problematically and consistently. Demir, Ferrari & Ozer, (2009) conducted a study on procrastination and reported that 52% of the students who are involving in procrastination. Further, Klassen et al. (2010) reported that 59% of one group 57% of another group of the undergraduate student's procrastination more than three hours a day. Onwuegbuzie (2004) describes that around 70% of students desire to decrease their procrastination on these academic activity. It is fact that students are becoming habitual to procrastination by avoiding their academic activities like preparation for examination, their assignments and limiting their time for studies which affect their use of skills and potential.

1.2.2 Causes/Reasons of students to engage in academic procrastination

The factors which effect plays a main role in students' academic procrastination are given below:

i. Time management: - It includes the act or process of planning and exercising the control over the amount of time spent on specific activities, to increase effectiveness, or efficiency but procrastinator students are not able to manage the time properly because of engaging themselves in unnecessary tasks which consumes the lot of precious time.

ii. Worry about failure: - The fear of not performing to the expectations of the people around you especially the family and friends holds back a student's ability to perform up to his potential.

iii. Aversion to the task: - Procrastination in some case is directly related to the avoidance of a task which a student feels to be unwanted or not that important for his/her success or failure. The level of importance of a certain task or an assignment makes a student to procrastinate. The student could have the ability to perform or finish certain task but because of the content of the task, the student could find the task boring or unpleasant. This leads to academic procrastination.

iv. Motivation:- Motivation is important reason for procrastination because an individual taking a pro-active and self-starting approach to work on goals and tasks and persistently working to overcome barriers and setbacks.

v. Mood or depression related: - Lack of interest to perform a task or a mental state of a student always have a big role in procrastination.

vi. Sincerity: - Sincerity refers to how much an individual is focused towards his/her work. It reflects one's seriousness and dedication towards an assigned task, but if a student is not sincere towards his academic task, he can be distracted easily by external factors or circumstances.

vii. Disobedience: - Procrastination can also occur in a student's academic activities just by opposing to perform a task which he/she nullifies or regard it as obsolete. Student also delays the task because of a person imposing it.

viii. Belief: - One of the important factor of procrastination could be the self-belief. If a student has negative belief in completing a certain task that can lead to procrastination.

Academic procrastination has been more popular in the recent research and professional fields than other types of procrastination like life routine, neurotic, and decisional (Keinan, & Gehrman, Milgram 1992). Procrastination affects a student's academic performance which results in low grades and even course with drawl (Semb, Glick & Spencer, 1979). The levels of procrastination in students are different according to the academic time duration in college fresher procrastinate less in comparison to their seniors (Semb et. al., 1979). Evaluation of academic procrastination has concentrated almost entirely on the measurement of study habits, such as minutes spent studying and attitudes toward studying (Zeisat, White, & Rosenthal, 1978) and lessons completed in self- paced instruction courses (e.g. Miller, Weaver, & Semb, 1974). Yuen, & Burka (1983) have recommended different explanations regarding procrastination which are overly perfectionist standards about competency, perceived aversiveness of the task, fear of success, lack of confidence, disobedience, difficulty in making choices, and evaluation anxiety,

Kim et al. (2015) studied on the relationship between procrastination and academic performance. Results showed that procrastination was negatively correlated with academic performance. Skender (2011) studied on the relationship of dysfunctional attitudes, academic procrastination, and self-compassion. Based on the findings there is insignificant difference of dysfunctional attitudes, academic procrastination, and self-compassion on the basis of gender. Further, there exist a positive relationship between self-compassion and academic procrastination and negative relationship between self-compassion and dysfunctional attitudes. In addition academic procrastination and dysfunctional attitudes are not correlated significantly. Sultan and Husain (2010)

investigated on academic performance and procrastination among university students. Based on the findings it showed that procrastination has influence on student's activities, learning, and preparation of exams and assignments as well as academic performance of students. The results recommended that lack of time management is the possible reason for procrastination. Rafique and Saleem (2012) carried out a study on self-esteem and procrastination. The results indicated that there exists a negative relationship between procrastination and self-esteem. Kandemir (2014) examined the academic motivation, internet addiction and extent to which coping with stress among university to clarify their academic procrastination tendency. The results showed that academic motivation, internet addiction and coping with stress predicts significantly on academic procrastination. Moreover, results showed that academic motivation is most significant predictor of academic procrastination.

Karatas et al. (2015) carried out a study on personality traits and academic procrastination of students. The results showed that academic procrastination and subscales of personality traits are correlated to each other. In addition there exists no significant difference of personality traits and academic procrastination on the basis of gender. Sadeghi (2011) investigate the relationship of obsessive beliefs with procrastination. The findings indicated that the subscale of obsessive beliefs like perfectionism/certainty with procrastination correlated negatively but importance/control of thoughts and responsibility/threat estimation correlated positively with procrastination. In addition the subscales of obsessive beliefs like perfectionism/certainty and responsibility/threat estimation are predictors of procrastination. In conclusion it could be recommended that obsessive beliefs will be possible reason to decrease procrastination. Sirin (2011) investigated on academic self-efficacy, academic motivation and general procrastination, and academic procrastination among students. It was revealed that academic procrastination and general procrastination are correlated positively and significantly but there exists no significant correlation among academic procrastination and, academic self-efficacy, academic motivation. Moreover, general procrastination predicts significantly of academic procrastination. In addition, there exists significant

difference of academic procrastination on the basis of gender. Balkis (2013) examined the role of rational beliefs about studying on the relationship of academic achievement, academic life satisfaction, and academic procrastination among undergraduate students. The results showed that there exists a negative relationship among academic procrastination with academic achievement, rational beliefs about studying, academic life satisfaction. Moreover, there is mediation role of academic life satisfaction on the relationship among academic achievement and academic procrastination, and academic achievement and rational beliefs about studying. In addition, there was mediation role of rational beliefs about studying on the relationship among academic procrastination, academic achievement and academic life satisfaction.

Motie et al. (2012) carried out a study on academic procrastination and self-regulated learning strategies among students. Results revealed that extrinsic goal orientation, intrinsic goal orientation with academic procrastination correlated negatively. Further, there exists significant difference of academic procrastination on the basis of gender. Metacognitive Self-Regulation, time/ study environmental management and effort regulation. Another study by Oksuz et al. (2014) carried out on the association of procrastination and psychological resilience among students. The results indicated that procrastination and psychological resilience correlated significantly and positively among students. Moreover, there exists significant difference in psychological resilience among students on the basis of grade level. Howell et al. (2007) investigated a study on the relationship among learning strategies, achievement goal orientations, examined and procrastination among undergraduate students. The results showed mastery-avoidance goal orientation correlated positively with procrastination but mastery-approach goal orientation correlated negatively with procrastination. Moreover, cognitive strategies and disorganization are predictors of procrastination. So it can be interpreted that meta-cognitive strategies is possible reason for decrease procrastination.

The study was carried by Eunju Lee (2010) on association of academic procrastination and flow experience, motivation among students. It was revealed that low incidence of flow state and self-determined motivations are correlated with high

procrastination. It was also found that intrinsic motivation is unique and significant influence on academic procrastination. But when the effects caused by flow experiences were considered on the variance in procrastination has not contributed significantly. Another study by Koushki et al. (2014) carried out on the association among academic procrastination, self-regulation attributional styles, and self-regulation among students. The results showed that academic procrastination and self-regulation, pessimistic attributional style, optimistic attributional style are correlated significantly. Park et al. (2012) carried out a study on self-regulated learning and its impact on academic procrastination. The results showed that defensive behaviors including self-handicapping strategies and poor self-regulatory skills are correlated with academic procrastination.

Rashmei et al. (2016) investigate the role of online social networks (internet) in academic procrastination students. The findings of the study indicated that no significant difference between procrastination behavioral change and unpleasant feeling caused by academic procrastination among female and male students. Components of daily use of networks, membership in networks, and duration of membership in the networks and frequency of logging into the network had the greatest correlation and impact on academic procrastination of high school students. Adrian Meier et al. (2016) examined on Facebook and procrastination with the impact on wellbeing and academic performance among students. It was revealed that high enjoyment of Facebook, habitual Facebook checking and low trait self-control predicts for procrastination. In addition students negative wellbeing and academic stress increases when using Facebook for the irrational delay of important tasks.

Sadeghi (2011) investigate the relationship between meta cognition beliefs with procrastination. The results indicated that cognitive self-consciousness was negatively associated with procrastination and positive beliefs, need for control of thoughts, cognitive confidence of metacognition beliefs were significantly and positively correlated with procrastination. Further, it was found that cognitive confidence, cognitive self-consciousness and negative beliefs, predicts procrastination. Lowinger et al. (2014) carried out a study on the association between English language proficiency, self-efficacy, coping styles are predictor of academic procrastination. It was explored that

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English language proficiency, self-efficacy, avoidant coping style, and collective coping style predicts significantly on academic procrastination among students. He, (2017) carried out a study in university students on academic procrastination. The sample of the study was 201 on different country background, educational levels, and ages. It was concluded that 48% students are always or very often procrastinate. Results also revealed that procrastination happens due to aversiveness of task, surfacing too much time on internet, with low motivation, too much time internet use, difficulty of task, Laziness, and stress. In addition above 80 percent students feels depression when they procrastinate. Another study conducted by Wolters (2003) on self-regulated learning, academic self-efficacy beliefs and academic procrastination among students. The results showed that meta-cognitive self-regulation and academic self-efficacy beliefs meta-cognitive self-regulation predicts strongly on academic procrastination. Ko, et al. (2019) carried out a study on relationship among procrastination, social anxiety and resilience among students. The findings indicated that social anxiety mediates partially on the relationship between resilience and procrastination. Moreover, those students who have higher level of resilience shows inferior level of procrastination and resilience had an indirect effect on procrastination through social anxiety.

1.3 PERFORMANCE

Performance or academic performances are the center for educational development. It is considered as the most significant part of education. The marks or grades which a student scores in a particular examination conducted by the educational institutes determine their performance. Whatever a student learns through many organized and planned experiences leads to the outcome of their performance. A student's harmonious academic development is very much dependent on his/her performance. Performance plays a significant role in judging ones potentialities and capabilities. Now a day's academic performance is being taken in consideration about an individual's personality for which students are pressing hard to get good grades. Even if we do have similar educational facilities, atmosphere, technology, and even intelligence

in the educational institutes we still have a variation in the performance of different students. These variations can come only due to the innate abilities of the students.

Academic performance plays a great role in the educational system, and it also helps the development of the nation in greater proportion. Many studies have been conducted in the field of academic performance. The main motive for the study was to focus completely on academic performance in relation to other personal, social and cognitive factors. Researchers came out with the factors that determine the enhancement of academic performance of the students. The world is changing vigorously with the onset of science and technology, so the academic performance of the students has become the top most priority of their parents. The promotion of academic performance has been increased by the educational institutions, as it has become the foremost priority for both the institutions and the parents.

1.3.1 Concept and Importance of Academic Performance

Academic performance means the achievements of the students at the end of educational course or the capabilities they produce in the subjects in which they appear for the examinations. Academic performance is regarded as the acquired or complete proficiency with respect to the given skill and knowledge. Performance is that golden crown which an achiever wears on achieving the sincerity, perseverance, and sense of candidness. Performance can generally be related to generalization, attainment of principles, the ability to perform competently and the handling of symbols, ideas and objects. Academic performance is always being assessed on the value of evaluation such as knowledge, understanding and information. Academic performance has been given definitions by various persons in different ways. Good (1973) defined academic performance is the "knowledge attained or skills developed in the school subjects, are usually designed by test scores or by mark assigned by teacher or by both." In another way Dwivedi and Saxena (1979) stated that the term performance is related to the accomplishment or achievement in the desired field by a subject in whom it gets information and instruction. In similar way Hawes and Hawes (1982) stated that

performance as the prosperous achievement in confined fields or subjects generally by working hard and having the skills to accomplish the task which is often summarized by marks, scores and grades or analytical commentary. Clifford et al. (1986) defines the performance as the task oriented behavior, it allows the persons performance to be assessed according to external and internal criterion imposed upon him. In addition, academic performance has been defined in Webster's Dictionary, as "The act of achieving or performing, accomplishment an exploit, and a great or heroic deed, and a feat". Every educational process sets a goal to achieve maximum results in a given period of time. Rao (1980) states, performance are mainly concerned with understanding, attainment of skills and development of knowledge. Similarly, Upadhyay and Verma (1981) says performance is the end result of an individual after what he achieves and gains during a training session in a particular branch of knowledge.

Academic performance score of a student indicates towards the future success of the individual. Analyzing the definitions mentioned above, it was determine that academic performance describes to the level of proficiency achieved in academic work or as formally attained information in subjects which is determined by the marks or grades, getting in examination by the students. It reveals the level of educational accomplishment in various subjects taught in educational institution. It also reveals the quality and quantity of education achieved in a subject after a period of instruction. Academic performance is also an index of future success and determines the pattern of one's living. Academic performance has gained high value in the current cultural and socioeconomic environment. Every educational system is assessed on the achievements of its students with respect to affective, psychomotor and cognitive domain. Academic performance is directly related to the students' performance, achievements and success. Oluwole and Aremu (2001) consider that academic performance as the structure of educational development. Jansen (2004) places the academic performance on a high level as he believes that it is the only source of students to be successful in the present society.

Masud et al. (2016) investigated the role of self-efficacy on parenting in relation to academic performance among university students. The results showed that parenting

styles in relation to academic performance are not correlated significantly. Moreover, there is role of mediation of authoritative parenting style in relation to academic performance of students. Talib et al. (2015) carried out a study on academic performance of the university students with perceived stress. The result indicates that perceived stress and academic performance of students was negatively correlated. In conclusion, social activities, sleep problem, and course load were the main cause of stress influences academic performance of the students. In similar way another study by Khanehkeshi (2011) conducted a study on academic performance in relation to depression, aggression, and academic stress of college going students. It was concluded that academic stress with academic performance, depression, aggression correlated significantly. In addition, depression, aggression, and academic stress influences on academic performance of students. Amin et al. (2014) studied the relationship of internet addiction and academic performance among university students. On the basis of analysis it was indicated that internet addiction with academic performance correlated negatively and significantly among university students.

Fori (2016) examined the social networking sites among university students with academic performance. The results showed that most of the users use social networking for chatting and making friends. It also shows that there is no significant effect of social networking sites on academic performance of students. Kumar et al. (2016) studied the influence of adjustment and self-esteem on the academic performance. The results indicated that there exist significant positive inter-correlation among adjustment, academic performance and self-esteem. Adjustment and performance differs significantly on the basis of gender. Male students scored higher than female counterparts in adjustment and lower than females in academic performance. In addition, self-esteem differs significantly on the basis of gender. Moreover, results shows that those students who have average or high level of adjustment and self-esteem impacts in a positive way of students' academic. Banu et al. (2015) investigated the perceived academic stress of students on the basis of semesters, academic stream, gender, and academic performance. The total number of respondents was 699 of university students from different streams

like as Science and Management, Humanities and Social Science. The results showed that female students have more academic stress than male counterparts. Students of Science and Management students have less academic stress as compared to students of Humanities and Social Science. Moreover, students who have well performance in academics and students from semester II students have described more academic stress.

El-Anzi et al. (2005) carried out a study in the association pessimism, optimism, self-esteem and anxiety with academic achievement of college going students. The results showed that self-esteem and optimism with academic achievement correlated positively and significantly but pessimism and anxiety correlated negatively. Another study was carried out by Stewart and Landine (1998) on the relationship of certain personality variables, metacognition and academic achievement of students. The results showed that the personality variables such as self-efficacy, locus of Control, motivation, meta-cognition, and academic average are correlated significantly and positively. So in conclusion personality variables and meta-cognition are correlated with academic achievement. Gerardi (2005) conducted a study on academic performance and academic self-concept among college students. The results showed that academic performance predicts significantly by academic self-concept. Shkullaku (2013) carried out a study on self-efficacy and academic performance among students. The results indicated that self-efficacy and academic performance among students correlated significantly. Further, it was revealed that academic performance and self-efficacy differs significantly on the basis of gender.

Boileau, et al. (2000) explored the relations of self-efficacy and perceptions of competence among students and their influence on academic achievement. On the basis of results it was found that self-efficacy and perceptions of competence were better predictor of academic achievement. Lane et al. (2004) investigated the influence of self-efficacy, self-esteem on academic performance among students. The respondents of the study were postgraduate students. The result indicates that significant relationship between self-efficacy and self-esteem. The results indicated that that there is mediation of self-efficacy on academic performance in relation to performance accomplishments.

Halawah (2006) studied the effect of motivation, family environment and student characteristics on academic achievement among students. It was observed that student's mean level of motivation was less than the means of parental influence and student's characteristics. There exists no significant difference in motivation, academic achievement on the basis of gender. There exists small and practically not significant correlation between academic achievement, student characteristics, family environment, and motivation. Naderi et al. (2008) examined the intelligence and gender as predictors of academic achievement among students. It was observed that low correlation between intelligence and gender with CGPA. Moreover, it was observed that intelligence and gender explained 0.019 of the variance in academic achievement. Another study by Nath et al. (2015) examined that correlation between these two variants of intelligence, and their relation to academic performance among students. The results showed that there is negative correlation between emotional quotient and intelligence quotient. Moreover, there is no significant correlation of emotional quotient and intelligence quotient to academic performance. Samad, et al. (2019) carried out a study on the impact of social networking sites on students' social wellbeing and academic performance. The analysis of the study indicated that social wellbeing of students, academic performance and social presence is correlated positively.

1.4 SELF-EFFICACY

Bandura's (1977) social learning theory later named as social cognitive theory in 1986 laid the foundation of self-efficacy. The research was carried out in which Bandura stated that efficacy is the basic state of mind which makes people differ from others in how they think, feel, behave and motivate themselves. Self-efficacy has a low association with helplessness, anxiety, depression, and stress in terms of feeling. These types of persons are having very low self-esteem and they tend to become more pessimistic about their achievements and personal development. The quality of academic achievement and decision-making is strongly related to the sense of efficacy that facilitates a person's cognitive process and performance.

Albert Bandura devised the term 'Self Efficacy' in his Social Cognitive Theory. It is a major component in Social Cognitive Theory. Bandura (1994) described these beliefs as determinants of how people think, behave, and feel. Persons having stronger efficacy beliefs possess more confidence in their capability to execute behavior. All our goals and achievements are strongly impacted by the beliefs about our self-efficacy which influence our motivation, our plans and emotional reflexes, and personal choice. Perceived self-efficacy helps us to achieve our goals by influencing the level of effort and persistence, which help us in crossing the hurdles between our goals. Moreover, Bandura (1995) stated that self-efficacy is the faith in one's competences to unify and implement the courses of action essential to cope forthcoming conditions. According to Weiten (2004) described that our expected outcomes depend on the self-efficacy of belief on ability to perform behavior. In the views of Klassen, Krawchuk, & Rajani (2008) stated that self-efficacy means one decision making abilities for fulfilling the piece of work successfully. It is an important factor in educational field. Self-efficacy is the major sign of performance in academics. The levels of achievement and learning is related to self-efficacy which also include a wide variety of adaptive academic results like higher levels of effort and regular persistence even on tough tasks both correlation and experimental studies, which involved students from a different variety of age group (Pintrich & Schunk, 2002).

Self-efficacy is a set of beliefs that function as "an important set of proximal determinants of human motivation, affect, and action". Therefore such beliefs create a method of achievement through affective, cognitive, and motivational superseding processes. Students with high level of efficiency are more likely commit to challenges that are more demanding, to set higher goals, and endeavor to meet those goals. They attain the objectives by envisaging successful results rather of abode on the possible adverse consequences. People's belief in their abilities impacts how much depression and stress they knowledge in taxing or threatening situations, as well as their level of motivation. The emotional reactions can affect action both directly and indirectly by changing the thought process and is dependent on how well people think they can cope.

People who trust they can cope threats are fewer distressed by them. They can lower their anxiety and stress by exercising control over the potential threats (Bandura, 1995). People who tend to have high self-efficacy approach difficult tasks as challenges and do not try to avoid them. Their level of motivation is determined by the peoples' efficiency as reflected in how much effort they will exert in an endeavor and how long they will endure in the face of difficulties (Bandura, 1989).

Self-efficacy relates to the students beliefs on their capability to successfully achieve and complete the activity, or task and specific assignment (Bandura, 1997). Usually, students having greater levels of self-efficacy tend to achieve more fruitful results in academic activities persist longer, use high level of strategies and achieve better scores than the students having lesser or no surety of their abilities to succeed (Bandura). Bandura believed that if the level of ability and motivation is adequate the chances of self-efficacy affecting positively on a person's tasks initiation and persistence are high. On the hand persons with less self-efficacy beliefs tend possess behavior of avoidance. In some prior research it has been found that college students who display higher levels of self-efficacy for social or everyday tasks (but no self-efficacy for academic tasks) report less frequent procrastination than do other students (Martin et al., 1995; Lay, 1992; Ferrari, Parker, & Ware, 1992). Tuckman (1991) and Skay, McCarthy, & Haycock (1998) also found a significant inverse relationship between efficacy beliefs and procrastination. Sexton and Tuckman (1992) determined that self-beliefs mediated between external conditions and self-regulated performance, such that a lack of efficacy led to procrastination. The indication from the results of previous studies is that students' self-efficacy has an significant affect impact on their behavior and motivation within achievement situations (Wolters, 2003). In addition Wolters recommended that college student's stated level of procrastination was associated to their self-efficacy for academic tasks and work avoidant goal orientation.

1.4.1 EFFECTS OF SELF EFFICACY

1. It influences motivational and self-regulatory process in several ways.
2. They influence the choices student make and the courses of action they pursue.

3. Self-efficacy beliefs of personal competence also help determine how much effort student will expend on an activity, how long they will persevere when confronting obstacles, and how resilient they will prove in the face of adverse situations.

4. Self-efficacy beliefs also influence the amount of stress and anxiety students experience as they engage in a task and the level of accomplishment they realize.

5. Strong self-efficacy beliefs enhance human accomplishment and personal well-being in many ways.

6. High self-efficacy helps create feelings of serenity in approaching, difficult tasks and activities. Conversely, student with low self-efficacy may believe that things are tougher than they really are a belief that fosters stress, depression, and a narrow vision of how best to solve a problem.

7. Innovative achievements also require sense of efficacy. Innovations require heavy investments of effort over a long period with uncertain results.

1.4.2 IMPACT OF SELF EFFICACY ON HUMAN FUNCTIONING

Bandura (1997) described four major psychological processes through which self-beliefs of efficacy affect human functioning. Such beliefs produce these diverse effects through four major processes.

Cognitive Process

Human behavior being purposive is governed before thought embodying valued goals. Personal goal setting is influenced by self-appraisal of capabilities. Locke and Latham (1990) reported that the stronger the self-efficacy, the higher goal people set for themselves, and firmer is their commitment to them. Most courses of action are initially organized in thoughts. Person's efficacy beliefs guide and shape the future course of action which he visualizes succeed and set positive guides and follow them in behavior. Those who doubt their personal efficacy, visualize failure and do things that may go wrong because it is difficult to achieve much while fighting self-doubts. A major function of thought is to enable people to predict events and to develop ways to control those that

affect their lives. Such skills need powerful cognitive processing of information that comprises many uncertainties and ambiguities.

Motivational Process

Efficacy beliefs play a key role in regulating self-motivation. There are three different forms of cognitive motivators around which different theories have been developed. They include cognized goal, outcome expectancies, and casual attributions. Self-efficacy beliefs influence causal attributions. People who regard themselves as highly efficacious attribute their failures to insufficient effort, those who regard themselves as inefficacious attribute their failures to low ability. Causal attributions affect motivation, performance and affective reactions mainly through beliefs of self-efficacy.

Affective Process

Individual's beliefs in their coping capabilities determine how much stresses and strain they can endure in threatening situations. Self-efficacy exercising control over stressors plays a central role in anxiety and arousal (Bandura, 1992 b). Efficacy beliefs affect person's vigilance toward potential threats and how they are perceived and cognitively processed. People, who believe potential threats as unmanageable, feel threatened by many aspects of their environment view their coping capabilities inefficacious thinking, they distress themselves and impair their level of functioning (Lazarus, 1999) more than those who possess high self-efficacy beliefs.

Selection Process

People are partly the product of their environment and their efficacy beliefs can help them in choosing the type of activities and environments they wish to get into and thus, shaping the course of their lives takes place. People with high sense of efficacy readily undertake challenging activities and select environment they judge them capable of managing, and avoid activities and environments they believe exceed their coping capabilities. Therefore, beliefs of personal efficacy can shape the course lives take by influencing them types of activities and environments people choose. People avoid activities and situations they believe exceed their coping capabilities. But they readily undertake challenging activities and select situations they judge themselves capable of

handling. By the choices they make, people cultivate different competencies, interests and social networks that determine life courses. Any factor that influences choice behavior can profoundly affect the direction of personal development, because the social influences operating in selected environments continue to promote certain competencies, values, and interests long after the efficacy decisional determinant has rendered its inaugurating effect.

Coutinho et al. (2008) studied on achievement goal orientation, learning style, self-efficacy and metacognition into a single framework that explained and predicted variation in performance. Self-efficacy was the strongest predictor of performance. Metacognition was a weak predictor of performance. Deep processing had a weak, negative relationship with performance. Mastery-approach goals were related to deep-processing and surface-processing learning styles. Mastery-approach and performance-approach goals were positive predictors of self-efficacy. Mastery avoidance and performance-avoidance goals were related to self-efficacy. Abdi et al. (2012) investigated the relationship between the self-efficacy beliefs and metacognitive with the student's academic achievement and test anxiety of students. On the basis of analysis there is a significant relationship between the self-efficacy beliefs and academic achievement, but there is insignificant relationship between the self-efficacy beliefs and test anxiety. Further there exists relationship between the metacognitive beliefs and test anxiety with the academic achievement. Thus it can be interpreted that self-efficacy beliefs affect the academic achievement and metacognitive beliefs have the role in the student's test anxiety and academic achievement. Sajjadi et al. (2015) examined the relationship between metacognition and self-efficacy and academic achievement among high school students. The data was analyzed by using correlation analysis. The results showed that there was a strong relationship between metacognition and self-efficacy and academic achievement but moderate relation was found between metacognition and achievement.

Younesi et al. (2014) examined the relationship among emotional self-efficacy and meta-cognitive believes with statistical anxiety in university students. The results showed that there is a negative and significant relation between emotional self-efficacy

and statistical anxiety; while there is a negative and significant relation between meta-cognitive believes and its 4 subscales. Further, results indicate that positive believes and statistical anxiety is not correlated to each other. In addition it is revealed that cognitive awareness and uncontrollability and danger predict 21% variance of statistical anxiety. Cerino (2014) investigated the relationship between academic motivation and self-efficacy with academic procrastination. The results showed that there exists relationship between academic motivation and self-efficacy with academic procrastination. Moreover, self-efficacy did not predicted academic procrastination but academic motivation has the role in deciding academic procrastination. Choi et al. (2015) carried out a study on social networks, hope and self-efficacy. The results indicates that their exists positive relationship among social networks, hope and self-efficacy. Moreover, social networks influences positively on hope and self-efficacy influences positively on hope and social networks. Harrison (2014) carried out a study on academic procrastination and performance and the role of perfectionism, motivation and self-efficacy among students. On the basis of analysis it was found that adaptive perfectionism and self-efficacy with academic procrastination correlated negatively. Moreover, motivation and academic procrastination was not correlated to each other. Also academic procrastination does not differ significantly on the basis of gender. Further, results showed that students with high procrastination have less academic performance and adaptive perfectionism strongly predicts on academic procrastination. Zoe Kahn (2011) examined on the procrastination and self-efficacy in graduate students. The results shows that their exist positive relationship between self-efficacy and procrastination.

Wang et al. (2013) examined the relationship between academic procrastination with academic self-efficacy, goal orientation and achievement motivation. The analysis revealed that academic self-efficacy, goal orientation, achievement motivation negatively contributes to academic procrastination. Further, goal orientation contributes to achievement motivation through academic self-efficacy, which then contributes to academic procrastination. In addition, academic self-efficacy and goal orientation contribute to academic procrastination through achievement motivation. Kandemir et al.

(2014) investigated a study on academic procrastination and predictive of self-esteem, coping with stress and academic self-efficacy. It is revealed that self-esteem, coping with stress and academic self-efficacy predicts the role on academic procrastination. Magno (2008) examined the metacognition, self-efficacy, and self-regulation can predictor of achievement goal orientations. The results showed that high school students and college students were moderated in the prediction of achievement goals. Further self-efficacy and self-regulation subscales are significantly associated with mastery goal. The influence of self-efficacy on performance orientation is significantly moderated by college and high school students. On the other hand, students who are pursuing in high school with having high self-efficacy efficacy boost their performance orientation. Self-regulation strategies and self-efficacy such as environmental structuring, organizing, and self-consequence are significant aspects of mastery-oriented students.

Birami et al. (2014) investigated the relationship among metacognitive beliefs, self-efficacy, optimism and exam anxiety in university students. Results indicated that there are positive significant relationship between dysfunctional metacognitive beliefs, positive beliefs about worry, cognitive self-consciousness and cognitive confidence. These factors with self-efficacy, optimism accounted for 27 present of the variation in the of exam anxiety. Moreover, the result showed that female exam anxiety and negative beliefs about thoughts uncontrollability was significantly greater from male but there were not any significant difference among other dysfunctional metacognitive beliefs and self-efficacy, optimism of two sexes. Finally the conclusion of this study that metacognitive beliefs, self-efficacy and optimism have important role in exam anxiety therefore these factors should be considered in educational and therapeutic actions for reduction exam anxiety. Al Khatib (2010) investigated a study on academic performance of college students and the predictive role of motivational beliefs and meta-cognitive self-regulated learning. The results shows that meta-cognitive self-regulated learning, test anxiety, self-efficacy and intrinsic goal orientation predicts significantly on academic performance among students. Ochieng (2015) explored the relation between self-efficacy and academic achievement from a Mathematical perspective among students. The results

showed that those who have high self-efficacy achieve well in Mathematics more than those who have low self-efficacy. Similarly, Akram and Ghazanfar (2014) found a significant relationship between academic achievement and self-efficacy. Ghaleb et al. (2015) investigated the role of achievement goals (performance goals and mastery goals), metacognition and self-efficacy on academic motivation of students. The results showed that metacognition and mastery goals have significantly impact on academic motivation but self-efficacy did not contribute on academic motivation. Boswell (2012) examined the relationship of academic entitlement with social networking and self-efficacy. The results showed that females have less academic entitlement than males. On the other hand, academic entitlement has significant relationship with social network use and self-efficacy. Seo (2008) examined the role of self-efficacy on the relationship of self-oriented perfectionism with academic procrastination. The analysis showed that students who have higher self-oriented perfectionism procrastinated less than other students. On the other hand, there is mediation role of self-efficacy on self-oriented perfectionism with the relationship of academic procrastination.

McGrath et al. (2015) carried out a study on social networking sites, self-esteem, social anxiety, life satisfaction and self-efficacy among college students. The results revealed that self-esteem, life satisfaction, social anxiety, and social networking are correlated each other. Moreover, age and life satisfaction are not correlated to each other. Gangadharbatla (2008) conducted a study on attitude towards social networking sites and the influence of collective self-esteem, need for cognition, need to belong, and Internet self-efficacy among college going students. The results showed that attitude towards social networking sites have influences positively by need to belong, collective self-esteem and Internet self-efficacy. Also, there is mediation of attitude towards social networking sites in relation to willingness to join social networking sites and need to belong Internet self-efficacy. Kolo et al. (2017) examined the study on academic performance of college students and its relationship with academic self-efficacy. On the basis of analysis it was revealed that positive and significant relationship between academic self-efficacy beliefs with academic performance of students. Similarly, Kadivar

(2008) concluded that there is a significant association between self-efficacy beliefs and academic achievement. Another study by Motlagh et al. (2011) conducted on academic achievement among students in relation to self-directing, self-regulation and self-evaluation. The results showed that self-directing, self-regulation and self-evaluation correlates to academic achievement. On the other hand self-efficacy is important factor in deciding the academic achievement of students. Another study by Aarabian et al. (2004) concluded that self-efficacy beliefs have a positive influence on mental health and academic achievement of university students. Graff, (2019) conducted a study on self-efficacy beliefs and academic procrastination among college going students. The results indicated that academic procrastination predicts by general self-efficacy and regulatory self-efficacy.

1.5 METACOGNITIVE BELIEFS

Metacognitive is one of the latest buzz in educational psychology, but what accurately metacognitive is? The abstract and length nature of the word creates it complete intimidating, yet it is not as seeming difficult concept to deal with in prospect as it might seem. We involve in metacognitive activities every day. Metacognition allows us to be effective learners and has been related with intelligence (e.g., Sternberg, 1984, 1986a, 1986b; Borkowski, Carr, & Pressley, 1987). Metacognitive states to higher order thinking which comprises effective control over the cognitive progressions involved in learning. Actions like as planning how to deal with a given learning task, monitoring apprehension and evaluating improvement towards the accomplishment of a task are metacognitive in nature. Because metacognitive plays a serious part in efficacious learning, it is significant to study metacognitive activity and development to clinch how students can be educate to well apply their cognitive resources through metacognitive control. According to Hrbakova, (2011) states that metacognition refers as a set of skills and abilities to know one's own cognitive learning activities, to monitor, to plan, and to evaluate techniques that he has applied in his learning. Meta-cognition theory denotes that attention is directed by metacognitive beliefs, it also determines the thinking style

and leads to the coping responses that cause the production of unhelpful information. Meta-cognitive beliefs alongside other stored beliefs about the self and the world which is responsible for controlling cognition and the use of other beliefs and general knowledge but as a separate part.

The term metacognition was given by Flavell in 1976. It was first used as metamemory and later as metacognition (Flavell (1977). Flavell defines that metacognition comprise of metacognitive skills like regulating and monitoring cognitive processes. Meichenbaum et al. (1985) denotes it to the awareness of own cognitive machinery of people and how it works. Literally metacognition refers 'cognition about cognition' or 'knowledge about knowing and learning'. Metcalfe and Shimamura (1994) states that to monitor and regulate cognitive processes like comprehension, problem solving, and reasoning etc., metacognitive knowledge is very useful. According to Brown et al. (1983) describes that different people have different metacognitive skills and knowledge and they also differ in grabbing the knowledge. Moreover, Kluwe (1982) stresses that human beings can assess and understand themselves as agents of their own thinking such as self-regulatory organisms. Knowledge of knowledge, thinking about thinking, cognition about cognitive processes, or knowledge and cognition about cognitive phenomena can be termed as metacognition (Flavell, 1979). Metacognition is described cognition about cognition.

Metacognition psychology is a field that has been around 1970. Flavell was the first one who began to study about metacognition (Aqazade & ahadyan 1998). Students' knowledge about their own cognitive processes and efficient use of the knowledge to regulate the cognitive processes is involved by metacognition. The essential components of metacognition are knowledge of cognition and regulation of cognition (Sungur & Senler, 2009). If one could become mindful from the internal dialogue which exists in his mind and if one could get to know problem solving and decision-making that have proficient meta recognition (Costa 1984). "Meta-cognition is types of awareness about the cognitions with executive processes of decision making that human beings should do cognitive processes and review their progress"(Bransford et al. 1983). Metacognition is

the apprehension of person's cognition or cognitive process or of each knowledge that needs the control, supervision or assessment of cognition. We can reflect the cognition as a common feature of cognition that plays role in all cognitive tasks. Metacognition is a multi-aspect concept that contains knowledge (beliefs), processes, and methods that measure and control the cognition. Meta-cognition is a varied idea, this idea comprises strategies, processes and beliefs or knowledge that control, monitor and evaluate cognitive (Baird, Kiel, Moses, & Wilson 2002). Maximum of cognitive tasks are reliant on meta-cognitive aspects that control and monitor these tasks. Two facets of meta-cognition differentiate by Meta-cognition theoreticians which are meta-cognitive knowledge and meta-cognitive regulation. The belief that individuals have about the concept of thoughts and cognition refers to meta-cognitive knowledge. Meta-cognitive knowledge in case of emotional disorders can be both negative or positive and meta cognitive regulations also clarifies the range of methods that emit information processing, or face it with better effort.

Metacognitive belief is confidence that students clench with respect to learning and thinking (Winograd & Paris 1990), and the information students obtain with regard their learning (Wenden, 1999). Student's necessity to trust in the determination of their personal knowledge and grow optimistic potentials for their performance and value success. Goal oriented as it is, learning might be undermined by a number of undesirable goals. Clifford, (1984) describes that students need to achieve self-belief and control their activities to perform better in the forthcoming efforts. They should take failure as a part of learning and to overcome them they should press hard to achieve the fruitful results. Students may develop many competent strategies if they get aware of the passive and negative attitudes toward learning. The incapability's can be turn into capabilities (Johnston, and Winograd, 1985). Metacognitive beliefs help the learners in coping up with the challenging tasks (Schunk, 1984; Bandura, 1982).

Wenden, (1991) describes the metacognitive belief in three classifications which is strategy knowledge, task knowledge and personal knowledge. Strategy knowledge means knowledge about both metacognitive and cognitive strategies and conditional

knowledge about where and when it is suitable to use them. Learners get to evaluate, revise, and select cognitive strategies, goals and tasks with relation to each other and the interests and abilities. Task knowledge describes the type of processing demands and the nature of the task. The nature and the purpose of the tasks must be known to the learners. The general information about the human behavior, human learning and individual knowledge of the process of learning can be described as personal knowledge. Learners require to comprehend their own cognitive abilities, and to know in which specific areas they are usually skillful and competent. They need to know how to compensate for weaknesses. Learners may intentionally call upon their metacognitive knowledge when the learning task is innovative and incomplete (Wenden, 1999).

Sadeghi (2011) examined the association between meta cognition beliefs and procrastination. Results showed that the cognitive self-consciousness correlated negatively with procrastination and positive beliefs about worry, need for control of thoughts and cognitive confidence of meta cognition beliefs were correlated significantly and positively. On the other hand, uncontrollability and danger, cognitive self-consciousness and cognitive confidence predict procrastination. So in conclusion contribution of Meta cognition beliefs may be decline the procrastination. Ghonsooly et al. (2014) explore the sense of self-efficacy and metacognitive awareness predicts their academic performance. It is observed that both self-efficacy and metacognition affect the academic performance. However, metacognition had a stronger effect. Further, results indicated that males and females do not differ significantly on self-efficacy and metacognition. Narimani et al. (2010) explored the metacognitive beliefs in normal and gifted and normal children. Result indicated that metacognitive beliefs among normal and gifted children differ significantly. Moreover, there exists significant difference of beliefs about the need to control thoughts and cognitive self-consciousness between normal and exceptional children but there is no difference on factors of beliefs about uncontrollability and danger, positive beliefs about worry and cognitive competence. Jaafar et al. (2010) studied the relationship of meta-cognition with mathematics self-efficacy among university students. The result shows that most of the students have moderate level in

mathematics meta-cognition and in mathematics self-efficacy. The results revealed that mathematics meta-cognition, mathematics self-efficacy and performance in mathematics correlated positively. Mirzaei et al. (2012) examining the relationship between academic success, students beliefs, metacognition and performance goals and achievement goals-mastery among university students. It is revealed that there is a full mediation of metacognition between academic success and mastery goals but there is no mediation of students beliefs between academic success and mastery goals. Hrbackova et al. (2012) investigated the association between metacognition, academic success and locus of control among university students. On the basis of analysis it was found that external locus of control do not contribute directly to performance or by metacognition and internal locus of control contribute both academic success and metacognition directly. The internal locus of control and academic success does not correlated significantly with metacognition.

Yailagh et al. (2013) studied on metacognition and the relationship with performance-approach, performance-avoidance, mastery avoidance and mastery-approach of achievement goals, and self-efficacy. The findings revealed that metacognition, with self-efficacy and achievement goals (except mastery-avoidance) correlated positively. Also achievement goals and self-efficacy have predicts the important roles in metacognition. Meidani et al. (2015) examined the association between meta-cognition beliefs and self-imaginary structure with self-regulatory learning among students. Results showed that self-regulatory learning with meta-cognition beliefs correlated negatively. Moreover, meta-cognition beliefs and self-imaginary correlated negatively, self-regulatory learning and self-imaginary correlated positively. Valiente et al. (2012) examined the relationship of metacognitive beliefs with psychological well-being. Result shows that psychological well-being predicted by the interaction between cognitive self-consciousness and persecutory thinking. Chamanabad et al. (2011) investigates the study on mental health and with relationship of meta-cognition and self-efficacy among students. On the basis of findings it was revealed that mental health with self-efficacy and mental health with meta-cognition correlated significantly. Also meta-

cognition and self-efficacy predicts the 59 percent the variance of mental health among students. Another study by Marino et al., (2016) carried out on problematic Facebook use and the role of metacognitions, personality traits, and motives for using Facebook among university students. The results showed that out of five two metacognitions predicts problematic Facebook use and out of four three motives to use Facebook predicts problematic Facebook use. Further, the component extraversion of personality trait are closely associated with problematic Facebook use, whereas problematic Facebook use by motives (conformity and coping) not directly influenced by emotional stability and metacognitions (confidence and negative beliefs). So it was concluded that metacognitions predicts problematic Facebook use among students.

Işgor, (2016) investigated the predicting effect of high school student's metacognitive skills, exam anxiety and academic success levels upon their psychological well-being. The analysis revealed that academic success, metacognitive skills and psychological well-being correlated significantly and positively, and exam anxiety and psychological well-being correlated negatively. On the other hand metacognitive skills with exam anxiety correlated negatively and with academic success positively. Moreover, academic success, exam anxiety and metacognitive skills are the significant predictors of psychological well-being. Akbari et al. (2015) investigate the relationship between inefficient metacognitive beliefs and mental well-being of students. In order to analyze the data, correlation test and multiple regression coefficient analysis were used. Results of correlation analysis showed that there was no significant relationship between mental well-being and inefficient metacognitive beliefs ($p > 0.01$). Considering the findings of the research, it can be established that an increase in students' mental well-being can improve inefficient metacognitive beliefs.

Kazemi et al. (2013) studied on psychological well-being and its relation with problem solving and meta-cognitive states among students. The result showed that psychological well-being and meta-cognitive components are correlated positively and significantly but psychological well-being of students and components of problem solving correlates negatively. In addition the components of problem solving like

personal control, approach-avoidance style, trust and the components of metacognitive like self- monitoring and awareness predicts the students psychological well-being. Another study by Tajrishi et al. (2011) carried out on negative emotions with the relationship of metacognitive beliefs among university students. The findings revealed that the components of metacognition like cognitive confidence need to control thoughts, negative beliefs and positive beliefs with the dimensions depression and anxiety of negative emotions are correlated positively and significantly. In conclusion it is revealed that lower scores in metacognition have lower negative emotions and higher scores have higher negative emotions.

Bidi et al. (2012) carried out a study on general health in relation to internet addiction and mediation role of metacognition. On the basis of findings it is revealed that Internet addiction are correlated positively and significantly with metacognition. Also it was found that general health and internet addiction correlated positively and significantly. Moreover, it was found that there is relationship between Internet addiction and low general health mediates by metacognition. Rostamoghli et al. (2013) investigate the role of procrastination, self-regulation and cognitive beliefs in predicting alexitimea in students. The results showed significant relation between self-regulation and alexitimea (P<0.001). There is also a positive significant relationship between metacognition and procrastination. In order words, 66% of alexitimea is explained by procrastination and metacognitive beliefs. The results of path analysis indicated that procrastination and meta cognitive beliefs affect alexitimea through self-regulation. Students with high self-regulated low levels of procrastination and alexitimea and as a result achieved higher academic achievement.

Mishra et al. (2016) studied on technological dependency, student metacognition, and pervasive technology use of students. The research indicated that students are very much dependent on technology and they feel anxiety with the absence of technology. For the excessive use of technology was correlated to metacognitive awareness. But students with higher behavioral management tendencies had a great control over the usage of technology. Bulent Dos (2014) conducted a study on metacognitive awareness among

university students and its relationship with satisfaction with life, academic achievement and mobile phone usage. On the basis of analysis it was revealed that there is excessive usage of mobile phones among university students. Also using social media, usage of mobile phone such as watching videos, playing games and listening music are correlated positively with academic achievement and metacognitive awareness. Uwazurike, (2010) examined the relationship between academic success, metacognition, performance goals, and mastery goals, among undergraduate students. On the basis of analysis that mastery goals associated with GPA however performance goals and GPA performance does not correlated to each other. Further mastery goals impact GPAs by metacognition as students having mastery goals can have higher metacognitive strategies and skills that they use to master information. In addition, metacognition correlated to academic success and those students who have high metacognition have high GPAs. Zulkiply (2009) examined the relationship between student's academic performance and metacognition metacognitive awareness. The findings revealed a significant positive relationship between student's academic performance and metacognitive awareness among students.

1.6 SIGNIFICANCE OF THE STUDY

Education and Learning especially amongst university students is essential in maintaining competitiveness to deal with the increasingly complex real world problems. Academic performance of the student helps to meet the challenges of the modern global world. In this competitive world, students have to face lots of difficulties in getting academic success like challenging subjects, demanding time schedules, peer pressure, difficulty in learning, challenging environment at university as well as at home. These situations make obstacles in the way of their academic success. They can only be successful if they will overcome all these challenging situations or difficulties in their life.

In today's world, technology is moving very fast and due to the competitive environment the mindset of the students is varying equally fast. Students seek more suitability, time expenditures and lower cost, and freedom from problematic procedures

and cumbersome. A delicate change is happening in the present society. We are becoming a "dot com" nation. We are making new paths of communication, sharing information, doing business, both public and personal. As a society, we are changing. It is the social networking platform, best powerful creation of the era, which creates everything conceivable in all manners. The social networking platform is one of the main technical classifications presently varying how we express social relationships, personal value and knowledge which become an entryway of information, entertainment, commerce and communication for everybody. All the users in different ages can find paths to spread their thinking and achieve help from others in pursuing their interests. It allows the users to explore new ideas, develop new intellectual connections, and enter into difficult systems.

Academic procrastination and social networking usage is one of the main fields of research and its effects on academic performance are one of the widest research fields of modern age. It is important to continue searching for mechanisms that decrease its effects on student's performance through social networking. Metacognitive beliefs and self-efficacy are two major categories of cognitive sciences which has major role to play in education. A self-efficacy and metacognitive beliefs plays an important role in acquiring academic procrastination. It is seen that many times students face many problems in the solving the tasks given because these tasks are not according their mental level. Sometimes tasks are very easy and sometimes very hard hence it is the unawareness in student's level of meta-cognition. In the same way meta-cognition is a cognitive power that can be improved by practice and by giving challenging tasks to the students. Meta-cognition also helps in identifying the student's mental capacities by having the knowledge about the student's mental level.

Usually, students having high level of self-efficacy incline to involve more eagerly in academic activities, persist longer, use more deep level, adopt regulatory strategies and attain higher results than students having less level of self-efficacy (Bandura). Bandura discussed that if satisfactory levels of motivation and ability occurred, self-efficacy would influence positively a person's persistence and task

initiation, however weak self-efficiency can contribute to behavior avoidance. Wolters recommended that student's described academic procrastination was associated to their self-efficacy for academic tasks and work avoidant goal orientation. Haycock, McCarthy, & Skay (1998); and Tuckman (1991) found a significant inverse relationship between efficacy beliefs and procrastination. Moreover, metacognitive beliefs are tools that empower the learner. Students very often fail to see learning as cycle that involves revisiting previous work to see where it can be improved, acknowledging the value of mistakes, and planning improvements on this basis. By showing a learner that they can be in control of how they study, how they organize their work, and how they reflect upon it. Although social media is a very useful tool in the hands of students, but many studies have shown the negative impact of these networks on academic performance (Karpinski et al., 2013; Paul et al., 2012). In this regard, Paul et al. (2012) showed a significant and negative correlation between the time spent on online social networks and academic performance of the students. Permanent use of social networks can lead to distraction, loss of time and procrastination (Karpinski et al., 2013; Ozer et al., 2013).

Review of literature revealed that academic procrastination is influenced by many factors including academic motivation, internet addiction, coping with stress (Kandemir, 2014), self-esteem (Saleem, et al., 2012), acculturative stress (Lowinger, et al., 2014), rational beliefs (Balkis, 2013), Meta cognition beliefs (Sadeghi, 2011), psychological resilience (Oksuz, et al., 2014), motivational regulation strategies (Grunschel, 2016) etc. There are few studies which have explored the influence of metacognitive beliefs on procrastination, (Sadeghi 2011, Rostamoghli et al., 2013), metacognitive beliefs and academic performance (Ghousooley et al., 2014, Karla et al., 2012), social networking and academic procrastination (Adrian Meier 2016 and Rashmi et al. 2016) and self-efficacy and academic procrastination (Cerino al 2015, Zeo Kahn 2011,Wang et al., 2013, Harrison 2014, Kandemir et al., 2014 & Seo 2008), self-efficacy on Social networking (Boswell 2012, Loinel et al., 2010, McGrath, Ciara, Wang et al., 2015), self-efficacy and academic performance (Shkullaku, Rudina 2013), metacognition on social networking (Mishra et al., 2016 & Dos 2014).

The current scenario of education system in India shows that development of self-efficacy and metacognitive beliefs are an important part of academic performance, which can be beneficial for students. Self-efficacy and metacognitive beliefs are the core competencies an individual possesses that enable them to cope with the difficulties in academics. For this purpose, a humble attempt was made by the investigator to explore the role of self-efficacy and metacognitive beliefs on social networking usage with academic procrastination and performance among university students in Jammu and Kashmir. The researcher is keen to understand the role of self-efficacy and metacognitive beliefs on social networking usage with academic procrastination and performance among university students.

The implications of this study in the context of educational institutes is that the effort towards endorsing social networking usage for academia is significant in a bid to improve a sense of knowledge sharing among students, which leads to enhanced student learning. To attain this, the educational institutes should work hard to organize orientation courses or seminars to encourage the productive and positive use of social networking, both attitudes and practices of social networking sites usage by instructors and students to be modified. This study also provides some empirical evidence and guiding information for educational management staff and government professionals to better understand their social networking users' needs so that they can come up with efficient frameworks or policies. The findings of the present research will also be helpful for students to deal with academic tasks, meaningful life and so on. Learners can revise, select, and evaluate cognitive goals, tasks and strategies with the help of study to achieve better academic performance. In universities, teachers will develop new approaches and teaching methods to challenge academic procrastination tendency among students. Educational planners and policy makers will be able to appliance constructive measure to academic procrastination tendency among students. Moreover, parents will be helped by this study to provide conducive environment to their children so that they should not become procrastinator.

Conceptual Model

Conceptual Model of the interplay among Social networking Usage, Academic procrastination and Performance: Role of Self Efficacy and Metacognitive Beliefs

Figure 1.4: Proposed Model of the Study
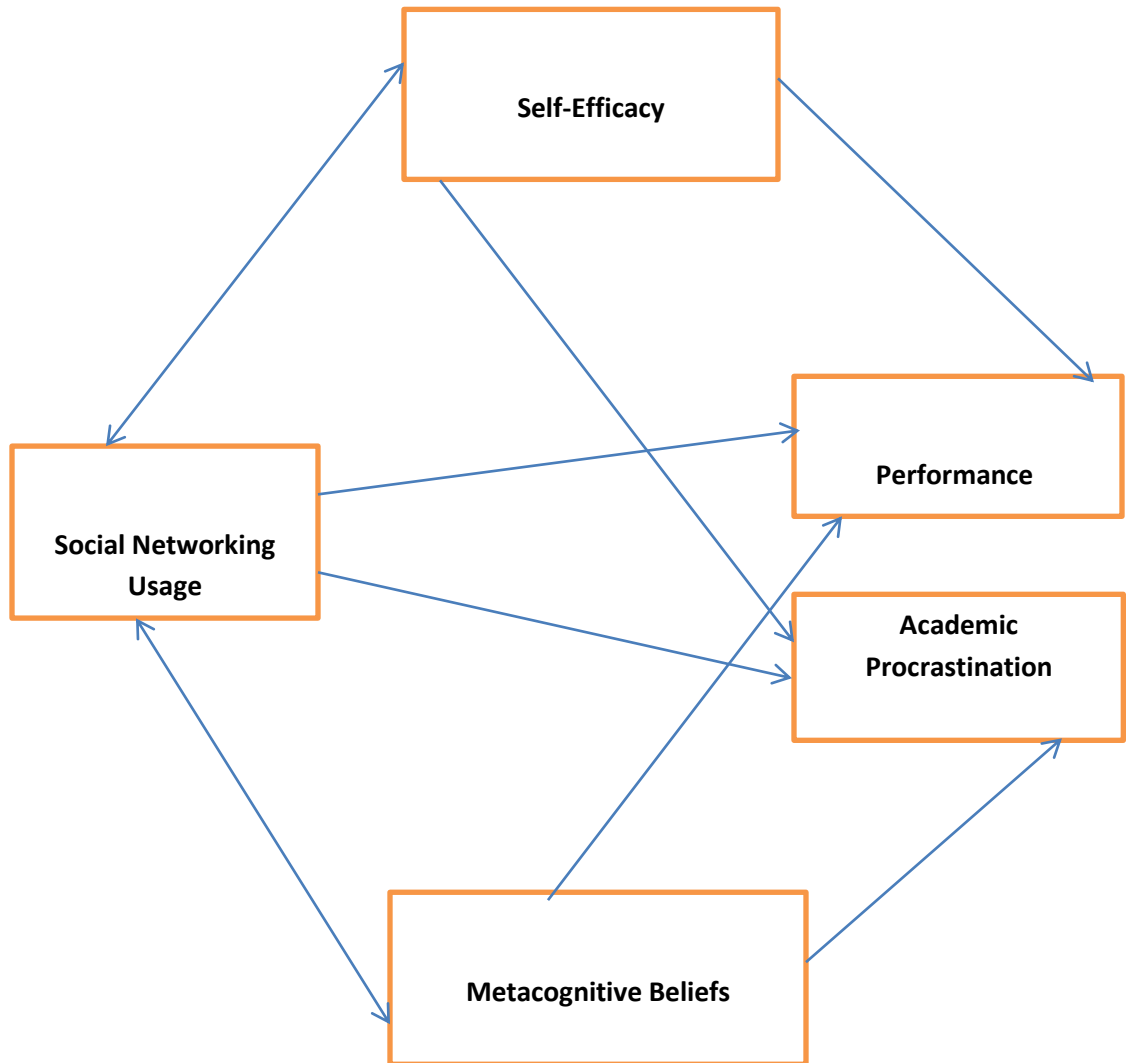
1.7 STATEMENT OF THE PROBLEM

Deriving from the significance, the problem has been stated as follows, SOCIAL NETWORKING USAGE, ACADEMIC PROCRASTINATION AND PERFORMANCE AMONG UNIVERSITY STUDENTS: ROLE OF SELF EFFICACY AND

METACOGNITIVE BELIEFS. It explores the social networking usage, academic procrastination, performance, self-efficacy and metacognitive beliefs of university students in different contexts i. e. gender and stream. Further the role of self-efficacy and metacognitive beliefs on relationship of social networking usage with academic procrastination and performance among university students have been studied.

1.8 OPERATIONAL DEFINITION OF THE TERMS

Social Networking Usage

An online space that is used by university students to connect, share, communicate, establish or maintain connection with others for academic, entertainment, socialization.

Academic Procrastination

Academic procrastination refers to an irrational tendency of university students to delay at the beginning or completion of an academic task, homework, project work and co-curricular activities.

Performance

Performance of university students indicates in terms of overall academic performance, achieved by university students in their continuous assessment, mid-term and in end term examination in their current session.

Self-Efficacy

Self-efficacy refers to the self-regulatory skills, self-influence, self-confidence and self-esteem of university students and beliefs about accomplishing a particular task, activity, or assignment.

Metacognitive Beliefs

Metacognitive beliefs is an ability of university students to understand and control the cognitive processes like positive beliefs, cognitive reliance and need to control opinions in making necessary decisions for starting and completion of a task further it comprises the knowledge about when and how to use particular strategies for commencement, control, coordination, selection, evaluation and completion of a problem.

University Students

Postgraduate students of Masters of Arts (MA), Masters of Science (M.Sc.) and Masters of Commerce (M.Com.).

1.9 OBJECTIVES OF THE STUDY

1. To study the pattern of social networking usage among university students.

2. To study the level of academic procrastination and self-efficacy among university students.

3. To study the relationship of social networking usage with academic procrastination and performance among university students.

4. To find out the significant differences among university students in their social networking usage, academic procrastination, performance, self-efficacy and metacognitive beliefs on the basis of gender and stream.

5. To study the role of self-efficacy and metacognitive beliefs on relationship of social networking usage with academic procrastination and performance among university students.

1.10 HYPOTHESES OF THE STUDY

1. There exists no significant relationship of social networking usage with academic procrastination among university students.

2. There exists no significant relationship of social networking usage with performance among university students.

3. There exists no significant difference between male and female university students in their social networking usage.

4. There exists no significant difference in social networking usage among university students on the basis of stream.

5. There is no significant interaction effect of gender and stream on social networking usage of university students.

6. There exists no significant difference between male and female university students in their academic procrastination.

7. There exists no significant difference in academic procrastination among university students on the basis of stream.

8. There is no significant interaction effect of gender and stream on academic procrastination of university students.

9. There exists no significant difference between male and female university students in their performance.

10. There exists no significant difference in performance among university students on the basis of stream.

11. There is no significant interaction effect of gender and stream on performance of university students.

12. There exists no significant difference between male and female university students in their self-efficacy.

13. There exists no significant difference in self efficacy among university students on the basis of stream.

14. There is no significant interaction effect of gender and stream on self efficacy of university students.

15. There exists no significant difference between male and female university students in their metacognitive beliefs.

16. There exists no significant difference in metacognitive beliefs among university students on the basis of stream.

17. There is no significant interaction effect of gender and stream on metacognitive beliefs   of university students.

18. There exists no significant role of self-efficacy on relationship of social networking usage with academic procrastination among university students.

19. There exists no significant role of self-efficacy on relationship of social networking usage with performance among university students.

20. There exists no significant role of metacognitive beliefs on relationship of social networking usage with academic procrastination among university students.

21. There exists no significant role of metacognitive beliefs on relationship of social networking usage with performance among university students.

22. There exists no significant role of self-efficacy and metacognitive beliefs on relationship of social networking usage with academic procrastination and performance among university students.

1.11 DELIMITATIONS

1. Keeping in mind paucity of time and resources present study is delimited to eight university of Jammu and Kashmir only and postgraduate students enrolled in these universities.

CHAPTER II

METHODOLOGY

Methodology of the research plays a very important role in the field of research. It describes the various steps to be adopted by a researcher in solving the research problem. In methodology, a part of research describes methods and procedure, which an investigator adopts for conducting research. It refers to logical plan of solving a research problem. It may be understood as a science of studying how research is done scientifically. Research design is the blueprint of 'what is to be done?'' and 'how is to be done?'' It is the path, which is to be followed by the researcher to reach the target. In a simple language, a research design is stated as a plan of action, a plan of collecting and analyzing data in an efficient and relative manner. To carry out research work, first, the researcher is supposed to draw out the methodology to be used. The ultimate success of a researcher's project greatly depends up on the design of the study. It avoids aimless wondering, saves time and economizes the efforts of researcher. This chapter's sections present the participants, instrumentation, and procedures followed for the study's quantitative data collection and analyses, addressing the rationale, means of selection, and parameters of the target sample population; design, testing, and validation of the instrument employed; and steps taken for the study's quantitative data collection and analysis.

- ❖ Research method
- ❖ Sampling
- ❖ Tools
- ❖ Procedure of Data Collection
- ❖ Statistical technique

2.1 RESEARCH METHOD

Method refers to the way a logical plan of solving a problem. In research there are number of methods and procedures to be applied such as experimental method, historical

method and descriptive survey method etc. It is the way of doing something especially a systematic way of solving a problem. It is an orderly arrangement of parts and steps to accomplish an end. A set of prescribed action or events must be enacted or have taken place in order to achieve a certain result. Method and procedure of the study depends upon the type and scope of the problem. Keeping in view the same, present study has employed descriptive survey method. The descriptive research method has undoubtedly been the most popular and the widely used research method in education. Descriptive research provides precise and pertinent information about the facts. It provides help to explain educational phenomena of relationships in terms of the conditions that prevail and opinions that are shared by the students, teachers, parents and experts. Sometimes, descriptive survey is the only source which provides information about opinions, attitude, suggestions for improvement of educational practice and other data. Descriptive research, also termed as statistical research, analysis data and properties about a certain population or phenomena to be studied.

2.2 SAMPLING

Sample is referred to a smaller proportion of a population which is selected for the research and analysis. Wiersma (2000) defines sample as "A subset of the population to which the researcher intends to generalize the results". After observation of characteristics of the sample, it is verified that characteristics of the population which is being selected is to be taken as a sample should be a representation of the population. Samples cannot be chosen haphazardly but in a systematic way, which include some rules and regulations or plan so that they represent the population.

Sampling can be said to be the most rigorous form in quantitative research as the investigator can claim that the sample is representative of the population and also can make generalizations to the population (Creswell, 2008). Hence, in order to achieve appropriate sample, multistage sampling technique was used. Multistage sampling indicates to sampling plans where the sampling takes place in stages using smaller and smaller sampling units at each stage. In a multistage sampling design, a sample of

primary units is selected and then a sample of secondary units is selected within each primary unit. In similar way, in this research, the sample is divided in to various categories. Multi-stage sampling is easier to implement and can create a more representative sample of the population than a single sampling technique. Particularly in cases where a general sampling frame requires preliminary construction, multi-stage sampling can help to reduce costs of large-scale survey research and limit the aspects of a population, which needs to be included within the frame for sampling. The succeeding paragraph highlights the selection of sample through multistage sampling technique.

For this study, the target population was postgraduate students from different universities of Jammu and Kashmir. Jammu and Kashmir is based on three divisions i.e. Jammu, Kashmir valley and Ladakh division. Out of three divisions Jammu, Kashmir and Ladakh, two divisions namely Jammu and Kashmir division were selected for getting valid generalized results. Due to the non-availability of university campus in Ladakh division, so it was not considered. In the selected Jammu and Kashmir divisions total 12 universities are existing i.e. 6 in each division. As per categorization for the present study, the list of universities was collected from website of UGC. Among these two selected divisions 08 universities were selected purposively, 4 from each division, comparable in terms of choice of streams, which is main aim of the study i:e 04 universities from each stratum for getting representative sample. The respondents from different streams i.e. Arts (Arts and Humanities), Science (Science and Engineering) and Commerce (Commerce, Economics and Management) were selected. An equivalent demonstration of both male and female university students equally distributed from 3 streams i.e. Arts, Science and Commerce were considered.

Sample Size: To determine the sample size for this study the investigator explored the university websites, prospectus, UGC website and personal visit. The investigator obtained the approximate population size of 28,466 university students of selected universities. The sample size for the present study was calculated with online sample size calculator to be 1400 which constitutes 05% of the total population.

Sample: Initially, questionnaires were distributed 180 per university in eight selected universities. Out 1400 questionnaires were distributed and there 1312 participants' responses were reverted. The reverted questionnaires were carefully checked for comprehensiveness, respondent detachment, misplaced outliers and values (Hair et al. 2010). 160 questionnaires were rejected analyzing the data statistically which came out as outliers. The final dataset contained of 1152 responses which is tabulated in the table 2.1. For this investigation a sample of 1152 university students of eight universities has been chosen via applying convenience sampling technique. Several reasons would be adequate to support this type of sampling approach. Panneerselvam (2012) reported that the researcher can choose sampling at their convenience because many respondents do not cooperate, some refuse to answer and some respondents either do not return the questionnaire or return an incomplete one. Further, Ahuja (2014) said in research situations where appropriate list of the respondents is not available probability sampling will be difficult and inappropriate. So number of students whose data has been collected per universities is shown in Table 2.1.

Table 2.1: List of Universities indicating sample size

S. No	Name of the University	Number of students
1	University of Kashmir	144
2	Central University of Kashmir	144
3	Islamic University of Science and Technology	144
4	Cluster University of Srinagar	144
5	University of Jammu	144
6	Central University of Jammu	144
7	Gulam Shah Badshah University Rajouri	144
8	Cluster University of Jammu	144
Total		**1152**

Figure 2.1: Distribution of the sample
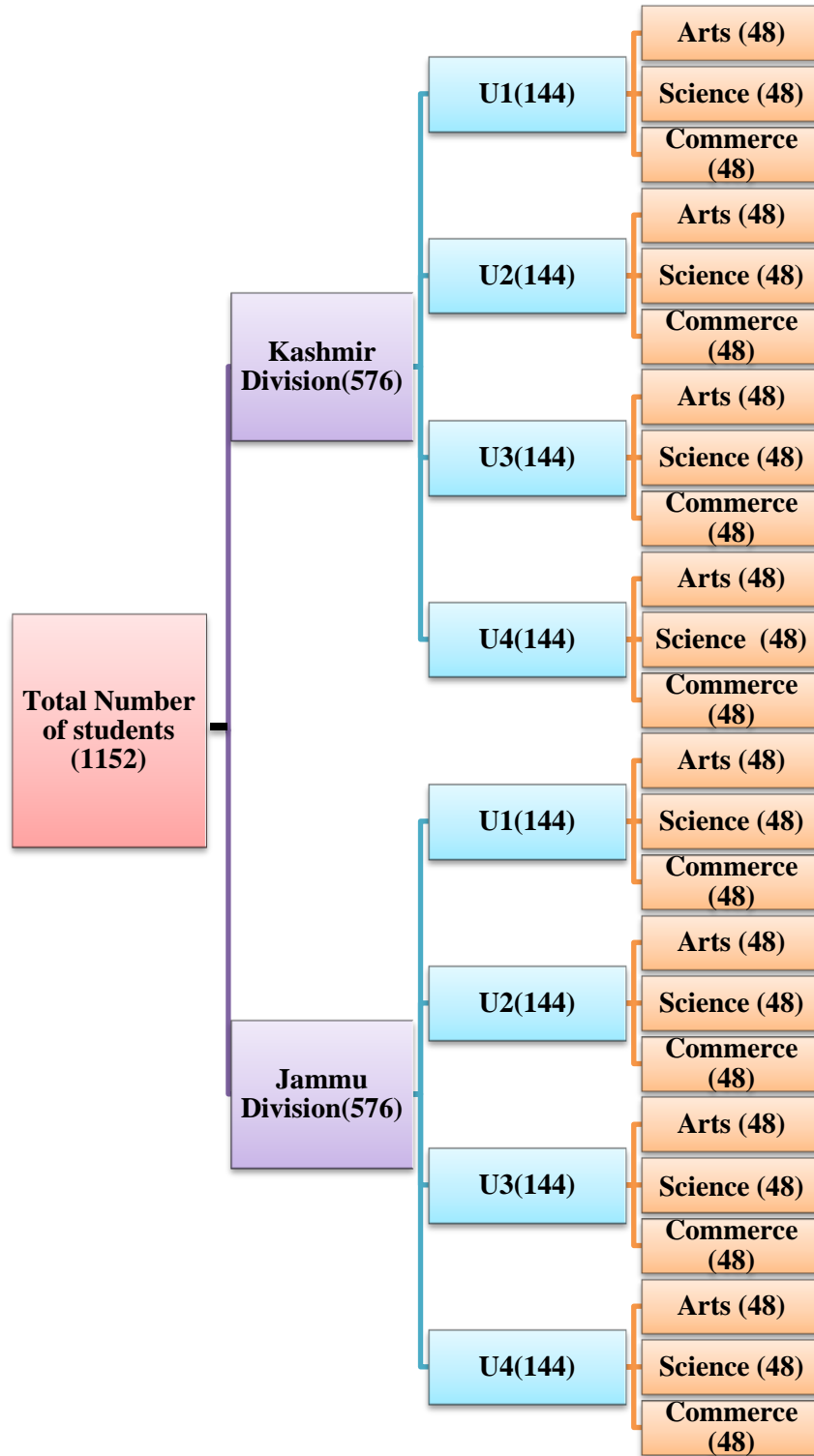
2.3 TOOLS USED

The data is gathered by a researcher to carry out any kind of research investigation and from which the hypothesis may be tested. To produce meaningfulness results from any research work, one not only needs to have the proper method, procedure, data analysis or result interpretations but also depends upon the appropriateness of the tools and measures employed in the study. The tools needs to be perfect as per the norms of research and their validity must be suitable for the research work. The data gathering tools used in this study comprised of four separate survey instruments. For quantitative data collection and analyses, there are numerous methods and research instruments/measurements available for collecting information from the respondents on designated constructs. In the present investigation Likert scale has been used in order to collect the required information, it is found to be most reliable and valid technique. For a particular study, the selection of tests/tools is based on certain criteria like nature of objectives, type of sample, appropriateness of tools, feasibility of time and competence of the researcher. Keeping these criteria in mind the researcher used following different research instruments to measure the research constructs.

a. Social Networking Usage Questionnaire
b. Academic Procrastination Scale
c. Self Efficacy Scale
d. Metacognitive Beliefs Questionnaire
e. Performance will be analyzed taking into consideration the academic record of the students.

DESCRIPTION AND DEVELOPMENT OF TOOLS

The details of the four research instruments used by the investigator are as follows:-

2.3.1 DESCRIPTION OF SOCIAL NETWORKING USAGE QUESTIONNAIRE

In the present study, social networking usage questionnaire was self-developed and standardized to measure the usage of social networking among university students. The

development and validation of the questionnaire was carried out by adopting highly reliable and valid questionnaire development process. This questionnaire can be used by researchers, teachers, and school counselors. The test scores can be used to diagnose for what purpose social networking is to be used. The details regarding questionnaire development and validation process is given below in detail.

- **Need for questionnaire development**

After studying the previous literature of social networking usage it was found that several measurements have been developed to investigate social networking usage. One of the instruments by Pornsakulvanich, et al; (2013) explored six components as, friendship, passing time, relationship maintenance, in trend, entertainment and relaxation. This scale was used to asses a degree to which individuals graded their specific aims for using social networking sites. Moreover quantitative survey questionnaire on social networking was standardized by Eid, et al; (2016) and the four categories explored were as enjoyment and entertainment, file sharing, content creation, online discussion, and chatting. Jenkins-Guarnieri, et al; (2013) standardized a scale on online social media use that assessed the daily routines of users, combination of the social behavior, along with the emotional connection and importance of usage, but this scale was not suitable to measure our construct. In Indian scenario Bolar (2009) developed a questionnaire based on 28 statements, on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). This questionnaire was actually based on the purpose of social networking sites usage. In addition Shi, et al; (2014) standardizes a scale on social networking sites usage. The scale contained two subscales; the social networking sites affective experience scale and the social networking sites featured usage scale. Shin, et al; (2017) developed a scale on social network site use motives on college going students. The scale consisted 30 items written in Korean, each representing one of the six subscales which were information, enjoyment, social, mood regulation, pastime and conformity. Different researchers standardized the scale by exploratory factor analysis (EFA) technique.

However no one researchers completed a confirmatory factor analysis (CFA) or provided detailed psychometric statistics such as test-retest reliability coefficient estimates. Vaguely defined measures are existing in some scales like Shin, et.al (2017) and there are some scales where detailed psychometrics did not afford (e.g., Eid, et al; 2016; Shy et al; 2014 & Pornsakulvanich, et al; 2013) and to evaluation of these tools is cumbersome. Furthermore, the comprehensive documentation of how the progress existed through formal procedures for scale development and validation is missing. Moreover (Shy et al; 2014) comprises the lack of association with other social networking sites questionnaires and examination of the test-retest reliability. In addition (Shin et al; 2017) used only self-reported data to assess SNSs addiction levels and times spent using SNSs were not included in the assessment of SNSs addiction. Also (Jenkins-Guarnieri et al; 2013) used nonrandom sample, and composed of voluntary participants, which may have produced significant selection biases.

There are also scales which have been developed and used to determine the usage of specific social networking sites, in particular Facebook. The Facebook intensity scale developed by Ellison, et al; (2007) contains two self-reported assessments intended to assess the degree to which respondents are keenly involve in Facebook, and further contains six attitudinal items which are related to rap the degree to which respondents are passionately associated to Facebook and the amount to which Facebook is unified in their everyday exercise. Andreassen et al; (2012) standardized a scale on Facebook addiction based on 18 item with six elements that is (modification, salience tolerance, mood, withdrawal, relapse, and conflict. Ross et al; (2009) standardized a Facebook Questionnaire, that includes few kinds of items assessing, attitudes associated with Facebook, posting of individually-recognizing information and basic use of Facebook.

At present, researchers have developed a number of social networking measures but in the context of present study no such questionnaire has been constructed. To fill up the gap and present a set of items which have been checked to have direct applicability to the Indian scenario. With this measure researchers will come to know the level of usage of social networking sites by university students to assess the positive and negative

consequences. The review of the literature demonstrates that numerous researches have been done on this said construct but it is essential to confirm the validity of the constructs even if well-established measures are involved (Hair, et al., 2010). With the purpose to decrease error by improving reliability and validity, a better explanations and more accurate predictions can be made through multivariate statistical analysis. Various methods can be found under multivariate methods and depending on the methods of analysis, different types of statistical approaches can be used (Hair, et al., 2010). Researcher designed a study to explicitly explore the social networking usage behavior among university students. The study followed highly reliable and valid scale development procedures of Hinkin (1995) and Churchill (1979).

- **Method**

Keeping in mind need of the study, questionnaire development approach was used to develop an instrument that sufficiently measures the social networking usage of university students. The procedures were as follows (i) definition of the construct intended to be measured (ii) generation of an item pool (iii) expert views on initial item pool (iv) refinement and validation of the scale (v) evaluation of the scale (DeVellis, 2016; Netemeyer, Bearden, & Sharma, 2003; Netemeyer et al. 2003; Worthington & Whittaker, 2006; Wymer & Alves, 2012).

- **Questionnaire Construction and Psychometric Analysis**

In this investigation rigorous literature was studied in order to develop a highly reliable and valid questionnaire. In initial stage, item generation was based on theoretical model. The statements related to social networking usage in Indian scenario were developed. The generated statements were intended to capture social networking usage of university students. In initial stage, 56 statements were generated by the investigators. It was essential to develop the robust psychometric properties of social networking usage questionnaire as well as dimensionality. Therefore, summated assessment procedure proposed by Likert (1932) has been used for developing present questionnaire. Likert

scaling is commonly used tool measuring beliefs, options and attitudes. It is frequently helpful for these items to be literally strong when used in a Likert format (DeVellis, 2016). Therefore the present questionnaire comprised 5-point Likert format, each statement is rated on five sequential points, (always=5, frequently=4, sometimes=3, rarely=2 and never=1.)

- **Content Validity**

After preparing the item pool, the face and content validity was established at the time of developing a preliminary draft of the research instrument by carrying out critical discussions with nine experts who reviewed, 56 statements selected for the first draft. The contents of each item were critically examined by these experts to review the suitability and relevancy of these items for a social networking usage questionnaire. Only those statements were retained for the second draft which had at least 75%-85% agreement among experts with regard to relevance of items. The experts were of the opinion that the remaining 42 statements were completely satisfactory and relevant to measure the social networking usage of university students in India, confirming the social networking usage questionnaire was sufficiently valid instrument for piloting.

- **Exploratory Factor Analysis**

The next step in the refinement stage was to conduct exploratory factor analysis (EFA). EFA simply explored and provides information about the amount of constructs required to represent the data. Exploratory factor analysis implies to discover the probable original factor construction of a set of observed variables not having imposing a predetermined structure on the consequence (Child, 1990). Researcher explored the factors of social networking usage through exploratory factor analysis. Numerous iterative cycles of factor analysis were conducted on the data set. The total variance and numbers of factors extracted were examined after each iteration. Factors with low communalities and which didn't correlate were deleted with the purpose of refining the factor structure to get a matrix with clearer loadings. The researchers used principal

component matrix (PCA) in this study and for rotation used the Varimax method. With this, researcher checked the factorability of the 42 statements of social networking usage of university student's sample. After performing exploratory factor analysis the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was calculated .888 (The minimum Kaiser-Meyer-Olkin (KMO) for a good factor structure should be 0.60 (Tabachnick and Fidell, 1996). A negligible significance level was shown by Bartlett's test of sphericity. Both measures suggest that the sample data were adequate for performing factor analysis. The detailed report is presented in Table 2.2.

Table 2.2: KMO and Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.888
Bartlett's Test of Sphericity	Approx. Chi-Square	2929.600
	Df	276
	Sig.	.000

Factor Structure: The factor analysis indicate a five factor structure, explaining 53.20% of the variance and all items loading above .40. (Acceptable item loading of above sample 350 is 0.40 (Heir et al 2007). The first factor comprised of items involving to the academic (7 items), second factor comprised of items relating to the socialization (6 items), third factor consisted of the items related to entertainment (4 items), fourth factor consisted of the items related to informativeness (3 items), and the fifth factor related to constraints (4 items). The items and their factor loadings are presented in Table 2.3.

Table 2.3: Statements of Social Networking Usage Questionnaire and their Factor Loadings

Items	Statements	Factor Loadings
Dimension: One	**Academic**	
Item 39	I use social networking sites to solve my academic problem.	.670
Item33	I use social networking sites to do research work.	.648

Item28	I use social networking sites for online academic group discussion.	.646
Item35	I communicate with my friends via social networking sites for preparation of exam.	.645
Item38	I use social networking sites for collaborative learning.	.560
Item 34	I use social networking sites to learn about my curricular aspect.	.530
Item 14	I use social networking sites to seek help from my teachers.	.499
Dimension: Two	**Socialization**	
Item08	I use social networking sites to become more sociable.	.680
Item25	I use social networking sites to create my social identity.	.673
Item26	I prefer using social networking sites to attending social gathering.	.622
Item10	I use social networking sites for strengthening interpersonal relationships.	.543
Item11	I use social networking sites to keep in touch with my relatives.	.522
Item27	I use social networking sites to get information regarding current social events.	.512
Dimension: Three	**Entertainment**	
Item32	I use social networking sites for sharing pictures.	.686
Item42	I use social networking sites to look at funny sharing.	.683
Item37	I use social networking sites for watching movies.	.587
Item36	I use social networking sites to get relief from academic stress.	.577
Dimension: Four	**Informativeness**	
Item30	I use social networking sites for reading news.	.714
Item23	I use social networking sites to share new ideas.	.626
Item16	I use social networking sites for getting jobs related information.	.422
Dimension: Five	**Constraints**	

Item21	I face difficulty in finding exact information for academic via social networking sites.	.709
Item12	Compulsive usage of social networking sites is a problematic issue.	.664
Item19	I usually postpone my academic task for spending more time on the social networking sites.	..621
Item17	While using social networking sites it is difficult for me to concentrate on my studies.	.582

- **Confirmatory Factor Analysis**

Confirmatory factor analysis conferring to Sorbom, & Joreskog (2004) is a different case of Structural Equation Modeling which is furthermore called as linear structural relationship model. Confirmatory factor analysis is a handy statistical process for providing validity evidence (Gerbing, & Hunter 1982). Confirmatory factor analysis is applicable when constructs are assessed with several items, when the scale statements have a linear association to the scale total or average, and when an examiner has an a priori knowledge of which statements measure which constructs. Confirmatory factor analysis is a statistical method used to confirm the factor structure of a set of observed variables. CFA permits the researcher to test the hypothesis that an association among with underlying latent constructs exists and observed variables (Suhr, 2006).

The confirmatory factor analysis was applied using SPSS Amos 22 version to the five factors extracted in exploratory factor analysis. The indices of the model were (CMIN/DF=2.193, Comparative Fit Index (CFI) =.887, Goodness Fit Index (GFI) =.926, AGFI=.904, Root Mean Square of Approximation (RMSEA) =.053 and Chi-square=320.240 (p>0.01). The final CFA model is on four factors. The inspection of the results revealed that the factor loading of three statements of that factor are below the threshold value. As this, only left one statement, and because it is accepted that any factor with less than three statements should be deleted, the four statements of constraints factor

was deleted (Hair et al; 2010). Figure 1 provides a holistic view of the confirmatory factor analysis model.

Figure 2.2: Confirmatory Factor Analysis of Social Networking Usage
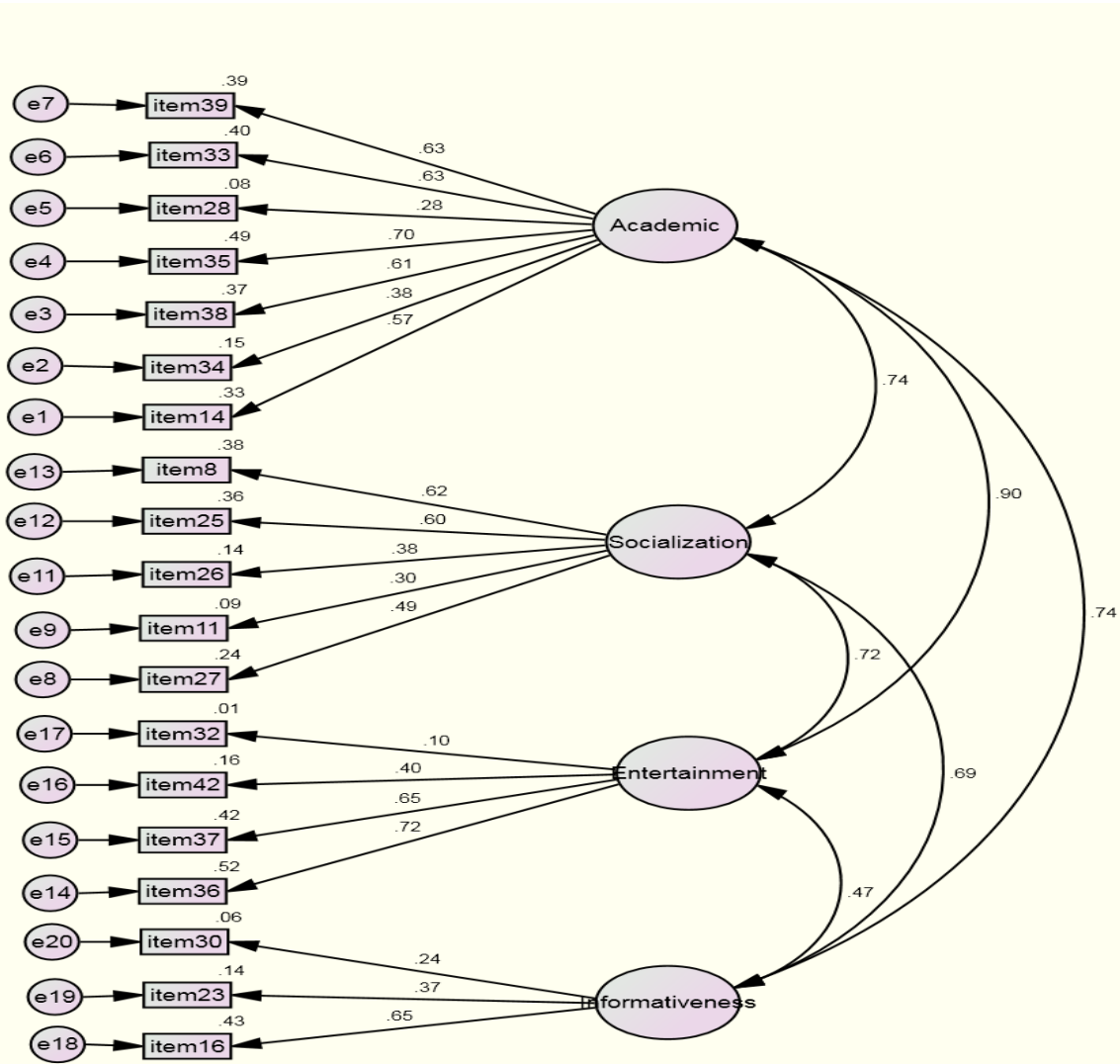
- **Reliability Analysis**

The Cronbach's alpha is used to measure the internal consistency among the items. According to Gliem & Gilem (2003) reliability coefficient Alpha normally ranges between 0 and 1. The rule of thumb specified by George & Mallery (2003) for interpreting Cronbach's alpha is that: "above 0.80 is acceptable. Hence, the present scale Cronbach's alpha of social networking usage (α= .830), indicates good internal reliability. Thus our reliability analysis suggests that social networking usage questionnaire is internally consistent. The reliability calculations are presented in Table 2.4.

Table 2.4: Reliability Statistics of Social Networking Usage Questionnaire

Cronbach's Alpha	Number of Statements
.830	19

- **Convergent Validity of Social Networking Usage Questionnaire**

Pearson's coefficient of correlation, calculated to identify levels of significance between factors, revealed higher levels of significant positive correlations for all dimensions of social networking usage (Academic, Socialization, Entertainment and Informativeness) with total score of social networking usage. The estimation value of correlation coefficient represents a good convergent validity of social networking usage questionnaire which is in line with the suggestions of Overbeek, Scholte, de Kemp, & Engels (2007). Refer to Table 2.5.

Table 2.5: Convergent Validity of Social Networking Usage Questionnaire

Measure	Academic	Socialization	Entertainment	Informativeness	Total score of social networking usage
Academic	1	.563**	.558**	.447**	.894**
Socialization		1	.420**	.559**	.783**
Entertainment			1	.233**	.737**
Informativeness				1	.593**

**Significant at 0.01 level

- **Scoring Procedure of Social Networking Usage**

Therefore the present scale comprised 5-point Likert format, each statement is rated on five sequential points, (always=5, often=4, sometimes=3, rarely=2 and never=1. The details regarding scoring of the questionnaire are given below in table 2.6.

Table 2.6: Scoring procedure of Social Networking Usage

Always	Often	Sometimes	Rarely	Never
5	4	3	2	1

2.3.2 DESCRIPTION OF ACADEMIC PROCRASTINATION SCALE

In the present study, academic procrastination scale has been designed and developed for the university students to explore their behavioral trait, attitude or tendency. The development and standardization process was carried out by using highly reliable and valid scale development procedure. Development procedure followed in the standardization of the academic procrastination scale is given further.

- **Need for development of the scale**

After studying the previous literature of academic procrastination it was found that several measurements have been developed to investigate academic procrastination. One of the instrument by general procrastination scale by (Lay, 1986). The general procrastination scale has acknowledged criticism on the grounds that Lay (1986) defined procrastination as specially a lack of goal attainment. Procrastination assessment scale of students standardized by Rothblum & Solomon (1984) is a broadly used scale to measure academic procrastination like an amount of time spent for studying. The main drawback of this scale is that it contains measuring procrastination tendencies in merely six potentially limited areas of academic attainment such as weekly readings, studying, writing term papers, general academic tasks, attending meetings and administrative tasks. Furthermore the academic procrastination scale by Choi and Moran (2009) has been used in some academic contexts. The major limitation of this scale is not specifically measuring academic procrastination. Moreover Tuckman (1991) standardized the procrastination scale that assesses task avoidance to academic activities. The main subject of contention resulted in the use of a 4-point Likert scale. Such type of scale can affectedly confine the range of responses and endorse a greater internal consistency coefficient with a poorer variability of procrastination. An instrument by Choi and Chu (2005) recommended two diverse constructs related to procrastination that is active procrastinators and passive procrastinators. The study fails to afford theoretic proof on the development of the two types of procrastination nor did they provide support for the constructs of procrastination.

After extensive review of literature, following four dimensions were finally included in this scale. A brief description of each of these dimensions is as under:

Time management: The time management is the process or act of exercising and planning sensible control over the quantity of time spent on particular activities, especially to increase productivity, efficiency or effectiveness.

Task Aversiveness: Task aversiveness makes an individual to put off things which he/she doesn't like to do. As a result of this habit, procrastination occurs. It is caused by

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task's qualities, feeling of individual's physical or emotional discomfort, when they do work. This happens because they consider the task as boring, frustrating, unpleasant, wearisome, difficult or resented.

Sincerity: It reflects one's seriousness and dedication towards an assigned task, a person who is sincere cannot be distracted easily by the external factors or circumstances.

Personal initiative: Personal initiative refers to pro-active and self-starting approach to carry on tasks and persistently working to overcome barriers and setbacks.

A number of academic procrastination measures have been developed by researchers but no such scale has been constructed in our context, this study will help to fill up the gap and present a construct in Indian scenario. With this measure researchers will come to know the level, reason of academic procrastination among university student because procrastination is a very common occurrence between students than ever, they have lots of tasks to do but they have not sufficient time, lack of seriousness.

- **Scaling of Items**

Mostly Likert scales are used in survey research, including several "points" with a continuum defining amount or levels of attributes or variables to be measured (Hinkin et al., 1997). Therefore summated evaluation technique proposed by Likert (1932) has been equipped for developing present scale. Each statement is rated on five sequential points, Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree.

- **Preparation of Items**

In the beginning a list of 63 items was prepared by going through available tests and other relevant literature. The list was given to 9 experts to review the suitability and relevancy of items. The experts including experienced teachers of education, technology and psychology. For the purpose of critical evaluation, accuracy, coverage and relevance of content in the present scale by requesting to adopt following criteria ("Mark 'R' for acceptable item; Mark 'M' for item that needs modification; Mark 'D' for Unacceptable

items".) for evaluation of content validity, based on the feedback of experts. On the basis of the reviews of the experts the detailed report has been given in Table 2.7.

Table 2.7: Reviews of the Experts

Sr. No.	Dimensions of scale	No. of items in preliminary draft	No. of items deleted	No. of items Modified	No. of items Retained	Total no. of items for tryout
1.	Time Management	19	6	6	7	13
2.	Task Aversiveness	17	5	5	7	12
3.	Sincerity	13	2	6	5	11
4.	Personal Initiative	14	4	4	6	10
	Total	63	17	21	25	46

- **Try-out**

The scale was administered on two independent samples. In the initial stage the test was administered to a random sample of 322 university students. In the final draft the test was administered to a random sample of 460 university students.

- **Item Analysis**

After completing the initial try-out, statements were assigned numbers according to aforementioned scoring procedure and the scores students were arranged in ascending order of total score and then 27% of them were selected for both ends as suggested by (Kelley, T. L. 1939). Thus, 87 participants constituted the each group i.e. high group, lower group. Furthermore, t-test was calculated to find out whether high and lower group differs from each statement of academic procrastination scale. After observing t-ratio, only those statements were retained having t-value equal or greater than threshold value 2.61, which are significant at 0.01 level with df=172 (Garrett & Woodworth, 2007).

Hence out of 46 statements, 16 statements were rejected and remaining 30 were selected for final try-out. The t-value of 46 statements is given in Table 2.8.

Table2.8: t- Value of 46 items of the Academic Procrastination Scale

Item No.	t-value	Item No.	t-value	Item No.	t-value	Item No.	t-value
1	**1.46**	13	4.10	25	3.86	37	3.22
2	5.64	14	5.71	26	**-0.68**	38	2.95
3	**1.54**	15	2.76	27	6.04	39	**-0.74**
4	**0.20**	16	4.14	28	4.60	40	**0.88**
5	6.71	17	4.87	29	**0.53**	41	2.94
6	3.51	18	3.80	30	3.07	42	3.19
7	**0.90**	19	4.99	31	**1.77**	43	8.09
8	5.24	20	**0.34**	32	**-0.18**	44	3.58
9	3.16	21	2.40	33	3.28	45	3.10
10	**0.19**	22	4.96	34	4.45	46	**0.30**
11	3.56	23	**1.70**	35	3.68		
12	3.55	24	**1.45**	36	**1.45**		

Note: Bold faced statement indicates rejected items.

Table 2.9: Division of Items

Sr. No.	Division of Items	Serial wise item No.	Total
i.	Time Management	1,2,3,4,5,6,7,8	08
ii.	Task aversiveness	9,10,11,12,13,14,15,16,	08
iii.	Sincerity	17,18,19,20,21,22,23	07
iv.	Personal Initiative	24,25,26,27,28,29,30	07

- **Final Form**

The final form of the academic procrastination scale contains 30 items with five responses alternatives.

- **Reliability Analysis**

The reliability of the test was determined by Cronbach's alpha coefficient. The Cronbach's alpha coefficient is used to measure the internal consistency. For this purpose the final draft of the test was administered to a sample of 460 students studying in different universities. Alpha coefficient was calculated with the help of resulting scores which was found to be 7.63. The detailed results are given in Table 2.10.

Table 2.10: Reliability Statistics of the Academic Procrastination Scale

Method	N	Reliability Coefficient
Cronbach alpha coefficient	460	0.76

- **Validity Assessment**

The content validity of this measurement was used to check the internal consistency of the statements. At the time of development of the preliminary draft by carrying out critical discussions with the experts, content validity was established. The experts were of the opinion that the statements of scale are completely satisfactory and relevant to measure the academic procrastination of the university students, the primary draft which had at least 75% - 85% agreement among experts with regard to relevance of items were retained among all the statements. Thus it can be said the present scale possessed adequate content validity.

- **Administration of the Scale**

The academic procrastination scale can be administered individually as well as in group. No time limit has been set for scale completion. First the respondents should be asked to fill in the personal data blank printed on the front page. The instructions must be read out clearly and loudly by the investigator and respondents must follow. How to respond the items of the scale the administrator should clearly defined. When the

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administrator becomes sure that students have understood the procedure, he should do further process and their responses should be recorded.

- **Scoring Procedure**

The scale contains 30 items, each item being a statement followed by a five-point scale: strongly agree, agree, neutral, disagree and strongly disagree. For positive items, if a respondent marks "strongly agree" weightage is given 5 point. Similarly 4,3,2 and 1 points are given for markings on 'agree', 'neutral', 'disagree' and 'strongly disagree' respectively. For negative items reverse points are given from (1 to strongly agree, 2 to agree, 3 to neutral, 4 to disagree and 5 to strongly disagree). The scoring of each form is according to the following procedure.

Table 2.11: Scoring Procedure of Academic Procrastination

Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Positive	5	4	3	2	1
Negative	1	2	3	4	5

Thus, the total score for each item ranges from 1 to 5, whereas the grand total of the academic procrastination scale ranges from 1 to 150. Higher scores reveal greater amount/ higher degree of academic procrastination, whereas lower scores reveal the lower amount/ lower degree of academic procrastination.

Table 2.12: Scoring System of Academic Procrastination

Positive Items	Item No.1,3,4,5,6,8,9,10,11,12,13,14,15,16,17,21,22,23,24,25,26,27,30
Negative Items	Item No. 2,7,18,19,20,25,28,29

- **Norms**

The respondents of the study were selected from Jammu and Kashmir by using simple random sampling technique ensuring that participants are appropriate in terms of representativeness and adequacy for proposed population. The range of individual respondents score calculated from raw score on present scale is 51 to 130, on the basis of descriptive statistics, z-score score norms based on 460 responses have been prepared. Norms for interpretation of the level of academic procrastination have been given in table 2.13.

Table 2.13: Z-score Norms for Academic Procrastination Scale

Mean: 88.92   SD: 14.63   N: 460

Raw Score	Z-Score	Raw Score	Z-Score	Raw Score	Z-Score
51	-2.59	78	-0.74	105	+1.09
52	-2.52	79	-0.67	106	+1.16
53	-2.45	80	-0.60	107	+1.23
54	-2.38	81	-0.53	108	+1.30
55	-2.31	82	-0.47	109	+1.37
56	-2.25	83	-0.40	110	+1.44
57	-2.18	84	-0.33	111	+1.50
58	-2.11	85	-0.26	112	+1.57
59	-2.04	86	-0.19	113	+1.64
60	-1.97	87	-0.13	114	+1.71
61	-1.90	88	-0.06	115	+1.78
62	-1.84	89	0.00	116	+1.85
63	-1.77	90	+0.07	117	+1.91
64	-1.70	91	+0.14	118	+1.98
65	-1.63	92	+0.21	119	+2.05
66	-1.56	93	+0.27	120	+2.12
67	-1.49	94	+0.34	121	+2.19

68	-1.42	95	+0.41	122	+2.26
69	-1.36	96	+0.48	123	+2.32
70	-1.29	97	+0.55	124	+2.39
71	-1.22	98	+0.62	125	+2.46
72	-1.15	99	+0.68	126	+2.53
73	-1.08	100	+0.75	127	+2.60
74	-1.01	101	+0.82	128	+2.67
75	-0.95	102	+0.89	129	+2.73
76	-0.88	103	+0.96	130	+2.80
77	-0.81	104	+1.03		

Table 2.14: Norms for Interpretation of Academic Procrastination Scale

Sr. No.	Range of Raw Score	Range of Z-Scores	Grade	Level of Academic Procrastination
1.	**119 & above**	**+2.01 & above**	**A**	**Extremely High**
2.	108-118	+1.26 to +2.00	B	High
3.	**97-107**	**+0.51 to +1.25**	**C**	**Above Average**
4.	82-96	-0.50 to +0.50	D	Moderate
5.	**71-81**	**-1.25 to -0.51**	**E**	**Below Average**
6.	59-70	-2.00 to -1.26	F	Low
7.	**58 & Below**	**-2.01 & below**	**G**	**Extremely Low**

2.3.3 SELF EFFICACY SCALE

In the present study, self-efficacy level of the university students has been assessed by using self-efficacy scale by Arun Kumar Singh and Shruti Narain (2014). This scale has been designed for use with 12 years and above age group of individuals. A brief description of different dimensions of self-efficacy is given here below.

a) **Self-confidence**:- The faith in oneself and in one's own abilities to perform a certain task or to arrive at a certain goal.

b) **Efficacy expectation**:- This term implies that the person can successfully achieve the behavior which is required to generate the particular outcome on its own. It determines how hard people will try and how long they will persist at a particular behavior.

c) **Positive attitude**:- It means to look at the brighter side of the things, and to have a positive app[roach towards the life and look for the ideas, values and thoughts that tend to make one feel positive, and to overcome every negativity of life and shelf all the problems aside. It also implies to have courage, exceed oneself and never quite attitude towards life.

d) **Outcome expectation**:- A person's belief that a given behavior will lead to a particular outcome.

Table 2.15: Division of the items of Self efficacy Scale

Sr. No.	Division of items	Serial wise item No.	Total
I	Self Confidence	1, 2, 3, 4, 5	5
II	Efficacy Expectation	6, 7, 8, 9, 10	5
III	Positive Attitude	11, 12, 13, 14, 15	5
IV	Outcome Expectation	16, 17, 18, 19, 20	5
		Total	**20**

- **Scoring Procedure of Self Efficacy Scale**

The scoring of positive items of self efficacy scale was done by giving a score 5, 4, 3, 2 or 1 for Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree respectively

and negative items were scored as 1, 2, 3, 4 and 5 respectively. Scoring system of the scale is presented in Table 2.16.

Table 2.16: Scoring System of Self Efficacy Scale

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Positive	5	4	3	2	1
Negative	1	2	3	4	5

Scores thus obtained were added together to yield total score. The details of negative and positive items with serial no of items are being provided in Table no. 2.17.

Table 2.17: Scoring Table of Self Efficacy Scale

Positive Items	Item No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 14, 15, 16, 17, 19 & 20
Negative Items	Item No. 4, 10, 12, & 18

- **Validity**

Self-efficacy scale is highly valid. It is validated against the general perceived self-efficacy scale developed originally in German by Jerusalem and Schwarzer and adapted by Sud (1981) in Hindi. The concurrent validity of self-efficacy scale is found to be 0.92 which is highly significant.

- **Reliability**

Self-efficacy scale is highly reliable. The test re-test reliability is found to be 0.8 and the split half reliability is found to be 0.74. All reliability coefficients are significant at .01 levels. Reliability coefficient of self-efficacy scale is given below in the Table 2.18.

Table 2.18: Reliability Coefficient of Self Efficacy Scale

Sr. No.	Reliability Method	(r) of SE
1	Test-Retest	0.80
2	Split half method	0.74

- **Norms**

Percentile norms for males and females for self-efficacy scale are given in Table 2.19 and 2.20.

Table 2.19: Percentile of Males for Self Efficacy Scale

Percentile	Score Point	Integral Score
P_{95}	92.47	93
P_{90}	89.55	90
P_{80}	86.22	87
P_{70}	83.31	84
P_{60}	80.33	81
P_{50}	75.64	76
P_{40}	73.54	74
P_{30}	71.53	72
P_{20}	69.17	70
P_{10}	66.45	67

Table 2.20: Percentile of Females for Self Efficacy Scale

Percentile	Score Point	Integral Score
P_{95}	93.51	94
P_{90}	90	90
P_{80}	86.27	87
P_{70}	82.45	83
P_{60}	78.72	79

P_{50}	75.25	76
P_{40}	73.03	74
P_{30}	70.81	71
P_{20}	68.67	69
P_{10}	66.53	67

- **Qualitative Interpretation**

The obtained scores on self-efficacy scale are qualitatively interpreted as under in the Table 2.21.

Table 2.21: Qualitative Interpretation of Self Efficacy Scale

Scores	Interpretation
85 and above	High Self Efficacy
74 to 84	Average Self Efficacy
73 or less	Poor Self Efficacy

2.3.4 DESCRIPTION OF METACOGNITIVE BELIEFS QUESTIONNAIRE

In the present research study, metacognitions Questionnaire constructed by Wells & Cartwright-Hatton (2004) was used to measure metacognitive beliefs. The questionnaire includes 30 statements which has five components cognitive confidence, positive beliefs, cognitive self-consciousness, negative beliefs and need to control thoughts. In this study metacognitive beliefs has been adapted from original scale of Wells & Cartwright-Hatton (2004). This questionnaire is widely used in all over the world as well as India but no such validation and adaptation procedure was adapted by previous researchers. In this study highly validation procedure was adapted to confirm the structural, construct and convergent validity of metacognitive beliefs.

The questionnaire metacognitive beliefs have 30 items to be responded on four point rating i.e. do not agree, agree slightly, agree moderately, and agree very much. The scale has 06 items each pertaining to cognitive confidence, positive beliefs, cognitive

self-consciousness, negative beliefs and need to control thoughts. The confirmatory factor analysis was applied to the five factors which has 30 items. During confirmatory analysis inspection of the results revealed that some indices are below the threshold level. After the inspection of the squared multiple correlations, variances and modification indices eight statements were deleted.

- **Confirmatory Factor Analysis**

According to Joreskog & Sorbom, (2004) confirmatory factor analysis is a distinct case of structural equation modeling which is also known as linear structural relationship model. SPSS Amos 19 version was used by applying confirmatory factor analysis on the five factors. The inspection of the results revealed that some indices are below the threshold level. After the inspection of the squared multiple correlations, variances and modification indices eight statements were deleted. The final indices of the model were (CMIN/DF=1.378, Comparative Fit Index (CFI) =.902, Goodness Fit Index (GFI) =.918, AGFI=.90, Root Mean Square of Approximation (RMSEA) =.037 and Chi-square=274.197 (p>0.01). Figure 2 provides a holistic view of the Confirmatory Factor analysis model.

Figure 2.3: Confirmatory Factor Analysis
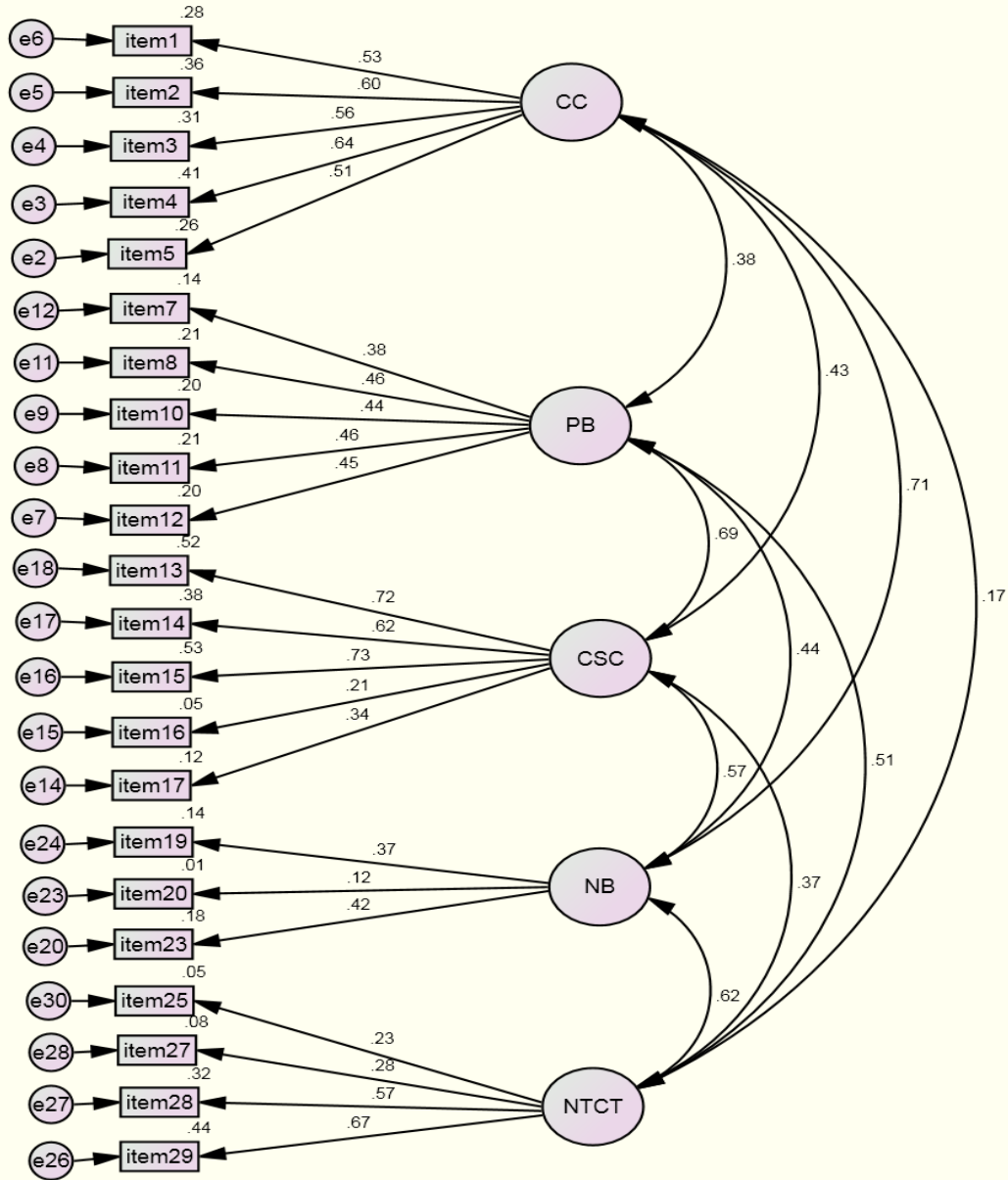
- **Scoring of the Scale**

For the purpose of scoring, a four point rating scale was used in Wells & Cartwright-Hatton metacognitive beliefs questionnaire. The points on the scale were defined as follows: Do not agree, Agree slightly, Agree moderately, Agree very much. The metacognitive beliefs questionnaire has 22 items after confirmatory factor analysis was applied. The following table showing the scoring pattern of metacognitive beliefs.

Table 2.22: Scoring Procedure of Metacognitive Beliefs

Do not agree,	Agree Slightly	Agree moderately	Agree very much
1	2	3	4

- **Reliability Analysis**

Consistency with which a test measures refers to reliability, whatever it measures. Both consistency and stability of measurement is suggested by the concept of reliability. Assessment of the consistency of results across the items within the test was done by using internal consisteny reliability. The Cronbach's alpha for the final set of items was found out to be ($\alpha= 0.761$) which is given in table 1. Moreover the thumb rule stated by George & Mallery (2003) for the interpretation of Alpha is 0.7 to 0.8 has acceptable internal consistency. So the estimation of reliability of the metacognitive beliefs scale has acceptable internal consistency.

Table 2.23: Reliability Statistics

Cronbach's Alpha	Number of items
.761	22

2.4 PROCEDURE OF DATA COLLECTION

A demographic profile sheet was prepared to gather general information about the participant's which include name, class, age, sex, etc. Then all the 1152 participants were contacted personally after taking permission from the higher officials in each university.

Investigator introduced himself as a research scholar and told them about the academic purpose and application of the present study. They were requested to answer frankly and honestly as the information were to be kept confidential and to be used only for research purposes. Demographic profile was used to establish a good rapport, and then, all the questionnaires were given to the subjects, one at a time and they were asked to read the instructions given on the top of each questionnaire. Investigator explained briefly but distinctly the purpose of the study. If they did not understand anything, it was made clear by the investigator. It was made clear that there were no "right" or "wrong" responses and if they had any queries, they could ask the investigator. The respondents were assured that their responses would be kept confidential. This technique was found to be of immense value in giving clarity to the study. Scoring was done according to instructions given in the respective manuals.

2.5 STATISTICAL TECHNIQUES

In order to analyze the data with suitable statistical techniques, the following statistical procedure was adopted in present study.

1. To study the pattern of social networking usage, level of academic procrastination and self-efficacy among university students, percentage was used.

2. To study the relationship of social networking usage with academic procrastination and performance among university students, Pearson coefficient of correlation was used.

3. To find out the difference among university students in their social networking usage, academic procrastination, performance, self-efficacy and metacognitive beliefs on the basis of gender and stream, ANOVA was employed.

4. To study the role of self-efficacy and metacognitive beliefs on relationship of social networking usage with academic procrastination and performance among university students, Structural Equation Modeling was employed.

CHAPTER III

ANALYSIS AND INTERPRETATION

Data analysis is most important pillar for building up a research work. Once the data has been collected by the help of relevant tools and techniques, the next step is to find an empirical solution to the problem through analysis and interpretation of the data. Quantitative analysis was held for the current research with help of descriptive and inferential statistics. Apart from percentage statistics data was analyzed by applying Pearson product movement correlation, two-way ANOVA and structural equation modeling. The analysis and interpretation represents the application of inductive and deductive logic to the research process. Analysis means categorizing, manipulating the data to reach a solution of the research problem. Interpretation calls for a critical examination of analysis. The tabulated data has no meaning, unless it is analyzed and interpreted by applying appropriate statistical techniques. Interpretation is essential for the sample reason that the usefulness and utility of research findings lie in proper interpretation. It is only through interpretation that the researcher can expose relations and processes that underlie his findings. The present chapter deals with the results and their corresponding interpretation in accordance with the objectives and hypotheses. Analyses of data means studying the tabulated information in order to determine the inherent factors or meanings. It involves in breaking up the complex factors into simpler ones and put the new arrangements for the purpose of interpretation. The findings prove the tentative hypotheses and finally lead to conclusion. The data analyses, results and interpretation of findings have been presented through the statement of hypotheses and their testing. The data analysis and interpretation of findings have been presented in the following headings.

3.1. DATA SCREENING

3.2 DESCRIPTIVE ANALYSIS

3.2.1. Results pertaining to the pattern of social networking usage among university students.

3.2.2. Results pertaining to levels of academic procrastination and self-efficacy among university students.

3.3. CORRELATION ANALYSIS

3.3.1. Relationship of social networking usage with academic procrastination and performance among university students

3.4. COMPARATIVE ANALYSIS

3.4.1. COMPARISON OF SOCIAL NETWORKING USAGE, ACADEMIC PROCRASTINATION, PERFORMANCE, SELF-EFFICACY AND METACOGNITIVE BELIEFS OF UNIVERSITY STUDENTS WITH RESPECT TO GENDER AND STREAM

3.4.1.1. Comparison between social networking usage among university students on gender and stream

3.4.1.2. Comparison between academic procrastination among university students on gender and stream

3.4.1.3. Comparison between performance among university students on gender and stream

3.4.1.4. Comparison between self-efficacy among university students on gender and stream

3.4.1.5. Comparison between metacognitive beliefs usage among university students on gender and stream

3.5. STRUCTURAL EQUATION MODELING

3.5.1. STRUCTURAL EQUATION MODELING APPROACH FOR SELF EFFICACY AND METACOGNITIVE BELIEFS ON THE RELATIONSHIP OF SOCIAL NETWORKING USAGE WITH ACADEMIC PROCRASTINATION AND PERFORMANCE AMONG UNIVERSITY STUDENTS

3.5.1.1. Role of self-efficacy on relationship of social networking usage with academic procrastination among university students

3.5.1.2. Role of self-efficacy on relationship of social networking usage with performance among university students

3.5.1.3. Role of metacognitive beliefs on relationship of social networking usage with academic procrastination among university students

3.5.1.4. Role of metacognitive beliefs on relationship of social networking usage with performance among university students

3.5.1.5. Role of self-efficacy and metacognitive beliefs on relationship of social networking usage with academic procrastination and performance

SECTION 1

3.1. DATA SCREENING

Before proceeding with data analysis, the investigator must rigorously analyze the data for identification of missing values and outliers (responses falling outside the range). According to Van den Broeck, Cunningham, Eeckels, & Herbst (2005) data cleaning is a process of quality assurance which facilitates a researcher with screening/monitoring, diagnosing and eliminating abnormalities of a data set. Due to its diverse benefits data cleaning has attained a substantial attention of researchers (Hadi, 1992). The main purpose of data cleaning is to identify and remove the errors and minimize their effect on

obtained results. In the present study prior to analysis and result generation data was rigorously analyzed for missing values and outliers using SPSS 21. The linearity and normality of the measures were also screened through the examination of the skewness, histograms, kurtosis, normality plots, Q-Q plots and box plots, in order to meet the assumptions of the multivariate analysis. The scatter plots inspected for determining the linearity of the relations between most of the research variables showed that the linearity assumption was met. In terms of normality, all of the research variables were normally distributed.

SECTION 2

3.2 DESCRIPTIVE ANALYSIS

3.2.1 Results pertaining to the pattern of social networking usage among university students.

In order to understand the usage pattern of social networking sites by the users, a questionnaire with series of items was administered to the respondents. In the following sections the analysis of the responses received from the students has been compiled.

(i) For how long social networking used

In order to trace how long the social networking sites used by the respondents. The results are presented in table 3.1.

Table 3.1: For how long social networking used: Percentage wise Analysis

Groups			Less than 1 year	1 to 2 years	2 to 3 years	3 to 4 years	More than 4 years	Total
	Male	Number	66	110	171	202	27	576
		Percent	5.7	9.5	14.9	17.5	2.4	50.0

Gender	Female	Number	183	234	83	56	20	576
		Percent	15.8	20.3	7.3	4.8	1.8	50.0
Stream	Arts	Number	35	80	102	134	33	384
		Percent	3.0	7.0	8.8	11.7	2.8	33.3
	Science	Number	22	56	124	159	23	384
		Percent	1.9	4.8	10.8	13.8	2.0	33.3
	Commerce	Number	47	84	97	105	51	384
		Percent	4.1	7.2	8.4	9.2	4.5	33.4
Total		Number	240	353	240	268	51	1152
		Percent	**20.8**	**30.6**	**20.8**	**23.3**	**4.5**	**100.0**

A look at the table 3.1 showed that the gender wise distribution of university students, 5.7 percent male university students and 15.8 percent female university students use social networking for less than 1 year. 9.5 percent male university students and 20.3 percent female university students use social networking for more than 1 years but less than 2 years. 14.9 percent male university students and 7.3 percent female university students use social networking for more than 2 years but less than 3 years. 17.5 percent male university students and 4.8 percent female university students use social networking for more than 3 years but less than 4 years. 2.4 percent male university students and 1.8 percent female university students use social networking for more than 4 years.

In case of stream wise distribution of university students, it was observed 3.0 percent arts students, 1.9 percent science students and 4.1 percent commerce students use social networking for less than 1 year. 7 percent arts students, 4.8 science students and 7.2 percent commerce students use social networking for more than 1 years but less than 2 years. 8.8 percent arts students, 10.8 percent science students and 8.4 percent commerce students use social networking for more than 2 years but less than 3 years. 11.7 percent arts students, 13.8 percent science students and 9.2 percent commerce students use social networking for more than 3 years but less than 4 years. 2.8 percent arts students, 2

percent science students and 4.5 percent commerce students use social networking for more than 4 years.

Out of the total sample size of 1152 respondents, approximately 21 percent of the respondents use social networking for less than 1 year. Approximately 31 percent of the respondents use social networking for more than 1 years but less than 2 years. 20.8 percent of the respondents use social networking for more than 2 years but less than 3 years. 23.3 percent respondents use social networking for more than 3 years but less than 4 years. 4.5 percent use social networking for more than 4 years. So it is found that the large portion of respondents use social networking for more than 1 year but less than 2 years.

(ii) How often the social networking sites are used

In order to trace how often the social networking sites are used by the respondents. The results are presented in table 3.2.

Table 3.2: How often the social networking sites are used: Percentage wise Analysis

Groups			Several times a day	Once a day	Once a week	Few times a week	Once a month	Few times a month	Rarely	Total
Gender	Male	Number	216	123	107	67	17	37	9	576
		Percent	18.8	10.7	9.3	5.8	1.4	3.3	0.7	50.0
	Female	Number	160	197	56	79	24	39	21	576
		Percent	13.9	17.2	4.9	6.8	2.0	3.4	1.8	50.0
Stream	Arts	Number	148	88	71	32	20	14	11	384
		Percent	12.8	7.7	6.2	2.7	1.7	1.3	1.0	33.4
	Science	Number	123	97	75	34	24	15	16	384

		Percent	10.6	8.4	6.5	3.0	2.1	1.3	1.4	33.3
	Commerce	Number	137	102	57	30	21	21	17	384
		Percent	11.8	8.8	5.0	2.7	1.8	1.8	1.4	33.3
Total		Number	365	331	153	140	45	77	41	1152
		Percent	**31.6**	**28.7**	**13.3**	**12.2**	**3.9**	**6.7**	**3.6**	**100.0**

From the Table 3.2 it is observed that 18.8 percent male university students and 13.9 percent female university students are using the social networking several times a day. 10.7 percent male university students and 14.2 percent female university students are using the social networking once a day. On the other hand 9.3 percent male university students and 4.9 percent female university students are using the social networking once a week. Approximately 6 percent male university students and 7 percent female university students are using the social networking few times a week. 1.4 percent male university students and 2.0 percent female university students are using the social networking once a month. 3.3 percent male university students and 3.4 percent female university students are using the social networking few times a month. A very small percentage of 0.7 percent male university students and 1.8 percent female university students were using the social networking rarely.

Further, table 3.2 showed the stream wise distribution of university students how often use social networking sites, 12.8 percent arts students, 10.6 percent science students and 11.8 percent commerce students are using the social networking several times a day. 7.7 percent arts students, 8.4 percent science students and 8.8 percent commerce students are using the social networking once a day. On the other hand 6.2 arts students, 6.5 percent science students and 5.0 percent commerce students are using the social networking once a week. 2.7 percent arts students, 3.0 percent science students and 2.7 percent commerce students are using the social networking few times a week. 1.7 percent arts students, 2.1 percent science students and 1.8 percent commerce students are using the social networking once a month. 1.3 percent arts students, 1.3 percent science students and 1.8 percent commerce students are using the social networking few times a

month. 1.0 arts students, 1.4 percent science students and 1.4 percent commerce students are using the social networking rarely.

In total, approximately 32 percent of the respondents are using the social networking several times a day, 28.7 percent of the respondents were using the social networking once a day and 13.3 percent of the respondents are using the social networking once a week. On the other hand 12.2 percent of the respondents were using the social networking few times a week and 3.9 percent of the respondents are using the social networking once a month. 6.7 percent of the respondents are using the social networking few times a month. A very small percentage of 3.6 percent of the respondents are using the social networking rarely. So this highlighted that the large portion of respondents are using social networking several times a day.

(iii) Time spent on social networking sites in a day

In order to understand average time spent on social networking sites in a day. The results are presented in table 3.3.

Table 3.3: Time spent on social networking sites in a day: Percentage wise Analysis

Groups			Less than 1 hour	1 to 2 hours	2 to 3 hours	3 to 4 hours	More than 4 hours	Total
Gender	Male	Number	40	61	101	123	251	576
		Percent	3.5	5.2	8.8	10.7	21.8	50.0
	Female	Number	49	279	128	89	31	576
		Percent	4.2	24.3	11.2	7.7	2.6	50.0
Stream	Arts	Number	10	32	101	107	134	384
		Percent	0.8	2.8	8.8	9.3	11.6	33.3
	Science	Number	21	27	94	117	125	384

		Percent	1.8	2.3	8.2	10.2	10.8	33.3
	Commerce	Number	15	34	89	103	143	384
		Percent	1.4	2.9	7.7	8.9	12.5	33.4
Total		Number	70	338	223	227	294	1152
		Percent	**6.0**	**29.3**	**19.4**	**19.7**	**25.6**	**100.0**

Table 3.3 indicates that 3.5 percent male university students and 4.2 percent female university students use social networking for less than 1 hour. 5.2 percent male university students and 24.3 percent female university students use social networking for more than 1 hours but less than 2 hours. 8.8 percent male university students and 11.2 percent female university students use social networking for more than 2 hours but less than 3 hours. 10.7 percent male university students and 7.7 percent female university students use social networking for more than 3 hours but less than 4 hours. 21.8 percent male university students and 2.6 percent female university students use social networking for more than 4 hours.

Moreover, table 3.3 shows the stream wise distribution of university students, 0.8 percent arts students, 1.8 percent science students and 1.4 percent commerce students use social networking for less than 1 hour. 2.8 percent arts students, 2.3 percent science students and 2.9 percent commerce students use the social networking for more than 1 hours but less than 2 hours. 8.8 percent arts students, 8.2 percent science students and 7.7 percent commerce students use the social networking for more than 2 hours but less than 3 hours. 9.3 percent arts students, 10.2 percent science students and 8.9 percent commerce students use the social networking for more than 3 hours but less than 4 hours. 11.6 percent arts students, 10.8 percent science students and 12.5 percent commerce students use the social networking for more than 4 hours.

In total 6 percent of the respondents use the social networking for less than 1 hour. Approximately 29 percent of the respondents use the social networking for more than 1 hours but less than 2 hours. 19.4 percent of the respondents use the social networking for more than 2 hours but less than 3 hours. 19.7 percent respondents use the

social networking for more than 3 hours but less than 4 hours. 25.6 percent use the social networking for more than 4 hours. So this highlighted that the large portion of respondents use social networking for more than 1 hours but less than 2 hours.

(iv) Preferred time for social networking usage in a day

In order to understand the preferred time for social networking usage in a day. The results are presented in table 3.4.

Table 3.4: Preferred time for social networking usage in a day: Percentage wise Analysis

Groups			In the morning	During noon	In the afternoon	In the evening	Late night	Total
Gender	Male	Number	53	49	87	282	105	576
		Percent	4.7	4.4	7.5	24.3	9.1	50.0
	Female	Number	70	40	130	95	241	576
		Percent	6.0	3.4	11.3	8.3	21.0	50.0
Stream	Arts	Number	41	26	101	119	97	384
		Percent	3.6	2.3	8.7	10.3	8.4	33.3
	Science	Number	39	28	88	135	94	384
		Percent	3.4	2.5	7.6	11.7	8.2	33.4
	Commerce	Number	22	50	61	150	101	384
		Percent	2.0	4.4	5.2	13.0	8.7	33.3
Total		Number	87	119	223	384	339	1152
		Percent	**7.6**	**10.3**	**19.4**	**33.3**	**29.4**	**100.0**

It is observed from the Table 3.4 that 4.7 percent male university students and 6 percent female university students use the social networking in the morning. 4.4 percent

male university students and 3.4 percent female university students use the social networking during noon. On the other hand 7.5 percent male university students and 11.3 percent female university students use the social networking in the afternoon. Approximately 24 percent male university students and 8 percent female university students use the social networking in the evening. Approximately 9 percent male university students and 21 percent female university students use the social networking in the late night.

Moreover, the table 3.4 shows the stream wise distribution of university students, 3.6 percent arts students, 3.4 percent science students and 2.0 percent commerce students use the social networking in the morning. 2.3 percent arts students, 2.5 percent science students and 4.4 percent commerce students use the social networking during noon. On the other hand 8.7 percent arts students, 7.6 percent science students and 5.2 percent commerce students use the social networking in the afternoon. 10.3 percent arts students, 11.7 percent science students and 13.0 percent commerce students use the social networking in the evening. 8.4 percent arts students, 8.2 percent science students and 8.7 percent commerce students use the social networking in the late night.

In total, 7.6 percent of the respondents use the social networking in the morning, 10.3 percent of the respondents use the social networking during noon. 19.4 percent of the respondents use the social networking in the afternoon. On the other hand 33.3 percent of the respondents use the social networking in the evening and 39.4 percent of the respondents use the social networking in the late night. So this highlighted that the large portion of respondents use the social networking in the late night.

(v) Frequency of the social networking sites usage

In order to understand the frequency of social networking sites usage. The results are presented in table 3.5.

Table 3.5: Frequency of the social networking sites usage: Percentage wise Analysis

Groups			Always	Often	Sometimes	Rarely	Never	Total
Gender	Male	Facebook	383	90	52	46	05	576
		Percent	33.3	7.8	4.5	4.0	0.4	50.0
		LinkedIn	93	97	122	130	134	576
		Percent	8.1	8.4	10.6	11.3	11.6	50.0
		Instagram	292	178	62	32	12	576
		Percent	25.3	15.5	5.4	2.7	1.1	50.0
		YouTube	379	104	56	27	10	576
		Percent	32.8	9.1	4.9	2.4	0.8	50.0
		Twitter	162	97	77	122	118	576
		Percent	14.1	8.5	6.6	10.5	10.3	50.0
		Google+	90	127	116	70	173	576
		Percent	7.8	11.1	10.1	6.0	15.0	50.0
		WhatsApp	410	69	49	39	9	576
		Percent	35.6	5.9	4.3	3.4	0.8	50.0
	Female	Facebook	330	165	41	28	12	576
		Percent	28.7	14.4	3.5	2.4	1.0	50.0
		LinkedIn	73	47	170	149	137	576
		Percent	6.3	4.0	14.7	12.9	15.1	50.0
		Instagram	222	135	93	66	60	576
		Percent	19.2	11.7	8.1	5.7	5.3	50.0
		YouTube	323	152	62	23	16	576
		Percent	28.1	13.2	5.4	1.9	1.4	50.0
		Twitter	53	72	117	127	207	576
		Percent	4.6	6.2	10.2	11.1	17.9	50.0

		Google+	127	146	48	101	154	576
		Percent	11.1	12.6	4.2	8.7	13.4	50.0
		WhatsApp	402	95	55	17	7	576
		Percent	34.9	8.3	4.7	1.4	0.7	50.0
Stream	Arts	Facebook	220	83	50	29	02	384
		Percent	19.0	7.2	4.4	2.5	0.2	33.3
		LinkedIn	112	83	59	90	40	384
		Percent	9.7	7.3	5.2	7.8	3.3	33.3
		Instagram	183	91	67	35	8	384
		Percent	15.8	7.9	5.8	3.1	0.7	33.3
		YouTube	255	58	33	26	12	384
		Percent	22.2	5.1	2.8	2.2	1.0	33.3
		Twitter	70	87	143	90	94	384
		Percent	6.1	7.5	12.4	7.8	8.2	33.3
		Google+	117	100	53	61	53	384
		Percent	10.1	8.6	4.7	5.3	4.6	33.3
		WhatsApp	272	63	22	17	10	384
		Percent	23.6	5.4	1.9	1.6	0.8	33.3
	Science	Facebook	184	112	63	26	01	384
		Percent	15.9	9.7	5.5	2.2	0.1	33.4
		LinkedIn	73	77	112	60	62	384
		Percent	6.3	6.6	9.8	5.3	5.4	33.4
		Instagram	222	78	47	27	10	384
		Percent	19.3	6.8	4.1	2.4	0.8	33.4
		YouTube	301	33	34	11	5	384
		Percent	26.3	2.8	2.9	1.0	0.4	33.4
		Twitter	112	83	40	73	76	384
		Percent	9.7	7.2	3.4	6.4	6.7	33.4

		Google+	132	100	43	57	52	384
		Percent	11.5	8.6	3.8	4.9	4.6	33.4
		WhatsApp	291	43	25	16	9	384
		Percent	25.2	3.7	2.3	1.4	0.8	33.4
	Commerce	Facebook	272	44	33	19	16	384
		Percent	23.6	3.8	2.8	1.7	1.4	33.3
		LinkedIn	63	87	101	49	84	384
		Percent	5.4	7.6	8.7	4.3	7.3	33.3
		Instagram	263	84	23	11	03	384
		Percent	22.8	7.3	1.9	1.0	0.3	33.3
		YouTube	312	39	13	15	5	384
		Percent	27.1	3.4	1.1	1.3	0.4	33.3
		Twitter	124	91	30	90	49	384
		Percent	10.7	7.8	2.7	7.8	4.3	33.3
		Google+	154	111	18	19	82	384
		Percent	13.3	9.6	1.5	1.7	7.2	33.3
		WhatsApp	311	38	15	13	7	384
		Percent	26.9	3.3	1.3	1.2	0.6	33.3
Total		Facebook	724	244	89	79	16	1152
		Percent	62.9	21.2	7.7	6.8	1.4	100.0
		LinkedIn	160	141	297	281	273	1152
		Percent	13.8	12.3	25.8	24.4	23.7	100.0
		Instagram	614	210	158	94	76	1152
		Percent	53.3	18.3	13.7	8.1	6.6	100.0
		YouTube	711	250	124	47	20	1152
		Percent	61.7	21.7	10.7	4.1	1.8	100.0
		Twitter	213	160	190	252	337	1152
		Percent	18.5	13.9	16.5	21.8	29.3	100.0

	Google+	213	262	311	184	182	1152
	Percent	18.5	22.8	27.0	15.9	15.8	100.0
	WhatsApp	833	156	108	43	12	1152
	Percent	72.3	13.5	9.4	3.7	1.1	100.0

It is pertinent from the table 3.5 that the 33.3% of male university students and 28.7% of female university students use the Facebook most frequently. After Facebook the next most commonly used site by male university students is WhatsApp i.e. 35.6% and female university students is 34.9%. The next social networking site is YouTube which is used by 32.8% male students and 28.1% female university students. After YouTube 25.3% male students and 19.2% female students use Instagram. The other preferred social networking in the series are Twitter, LinkedIn and Google+ which is used by 14.1%, 8.1%, 7.8% university students respectively. In case of female university students Twitter is used by 4.6%, LinkedIn is used by 6.3%, and Google+ is used by 11.1%.

Further, result indicates that WhtasApp (23.6%) is most frequently used by arts students. For science students YouTube (26.3%) is most frequently used social networking site as well as for commerce students YouTube (27.1%) is most frequently used social networking site. After WhatsApp the next most commonly used site by arts students is YouTube (22.2%) and for science students the next most commonly used site is WhatsApp (25.2%) as well as for commerce students WhatsApp (26.9%) is most frequently used social networking site. After, WhatsApp in the sequence are Facebook (19.0%), Instagram (15.8%), Google+ (10.1%), LinkedIn (9.7%), and Twitter (6.1%) for arts students and for science students in the sequence are Instagram (19.3%), Facebook (15.9%), Google+ (11.5%), Twitter (9.7%), and LinkedIn (6.3%) and also the case for commerce students in the sequence are Facebook (23.6%), Instagram (22.8%), Google+ (13.3%), Twitter (10.7%), and LinkedIn (5.4%). So least usage among all is found to be LinkedIn and twitter for arts as well as science and commerce students.

Overall, it was found that WhatsApp (72.3%) is most frequently used social networking site for university students. After WhatsApp the next most commonly used site by university students is Facebook (62.9%). After Facebook in the sequence are YouTube (61.7%) and Instagram (53.3%) and least among all are Twitter (18.5%), Google+ (18.5%) and LinkedIn (13.8%). The detailed description is presented in table 3.5.

3.2.2 Results pertaining to levels of academic procrastination and self-efficacy among university students.

3.2.2.1 Levels of academic procrastination among university students.

3.2.2.2 Levels of self-efficacy among university students.

3.2.2.1 Academic Procrastination among university students.

The objective 2 of the present study was to explore the level of academic procrastination among university students. This section deals with the data relating to the academic procrastination among university students based on gender, stream and overall sample distribution. The detailed analysis is given in Table 3.6.

TABLE 3.6: LEVELS OF ACADEMIC PROCRASTINATION AMONG UNIVERSITY STUDENTS

GROUPS			**LEVELS OF ACADEMIC PROCRASTINATION**							
			Extremely High	**High**	**Above Average**	**Moderate**	**Below Average**	**Low**	**Extremely Low**	**Total**
Gender	Male	Number	56	67	72	130	80	88	83	576
		%	4.9	5.9	6.2	11.2	6.9	7.7	7.2	50.0
	Female	Number	55	74	67	151	89	76	64	576
		%	4.8	6.4	5.8	13.2	7.7	6.6	5.5	50.0
Stream	Arts	Number	42	50	34	88	66	55	49	384
		%	3.6	4.3	3.0	7.6	5.8	4.7	4.3	33.3
	Science	Number	24	43	52	100	51	56	58	384
		%	2.1	3.7	4.6	8.6	4.4	4.9	5.0	33.3
	Commerce	Number	45	48	53	93	52	53	40	384
		%	4.0	4.2	4.6	8.1	4.5	4.5	3.5	33.4
Total		Number	111	141	139	281	169	164	147	1152
		%	**9.6**	**12.3**	**12.1**	**24.4**	**14.7**	**14.2**	**12.7**	**100**

Table 3.6 shows the data relating to the percentage wise representation of university students in different levels of academic procrastination. Table also shows the number and percentage of university students distributed in different levels of academic procrastination on the basis of gender and stream category.

It is pertinent from the table 3.6 that 4.9% male university students and 4.8% female university students possess extremely high level of academic procrastination.

Similarly 5.9% male university students and 6.4% female university students possess high level of academic procrastination. It also observed that 6.2% male university students and 5.8 % female university students possess above average level of academic procrastination. Further 11.2% male university students and 13.2% female university students possess moderate level of academic procrastination. It also observed that 6.9% male university students 7.7% female university students possess below average level of academic procrastination. Moreover 7.7% male university students and 6.6% female university students possess low level of academic procrastination. Finally 7.2% male university students and 5.5% female university students possess extremely low level of academic procrastination. So male as well as female students falls under moderate level of academic procrastination.

Further, table 3.6 shows stream wise distribution of university students, 3.6% arts students, 2.1% science student's and 4.0% commerce students possess extremely high level of academic procrastination. Similarly 4.3% arts students, 3.7% science student's and 4.2% commerce students possess high level of academic procrastination. It also observed that 3.0% arts student, 4.6% science student's and 4.6% commerce students possess above average level of academic procrastination. Further 7.6% arts students, 8.6% science student's and 8.1 % commerce students possess moderate level of academic procrastination. Also 5.8% arts students, 4.4% science student's and 4.5% commerce students possess below average level of academic procrastination. Moreover 4.7% arts students, 4.9% science student's and 4.5% commerce students possess low level of academic procrastination. Finally, 4.3% arts students, 5.0% science student's and 3.5% commerce students possess extremely low level of academic procrastination. So arts, science as well as commerce students fall under moderate level of academic procrastination.

In total, 29.6% university students falls under extremely high level academic procrastination, 12.3% falls under high level, 12.1% falls under above average, 24.4% falls under moderate level, 14.7% falls under below average, 14.2% falls under low level and finally 12.7% falls under extremely low level of academic procrastination. Thus

overall most of the university students fall under the extremely high level of academic procrastination. For further understanding refer to Figure 3.1 showing graphical representation of level of academic procrastination of university students.

FIGURE 3.1: GRAPHICAL REPRESENTATION OF LEVEL OF ACADEMIC PROCRASTINATION OF UNIVERSITY STUDENTS
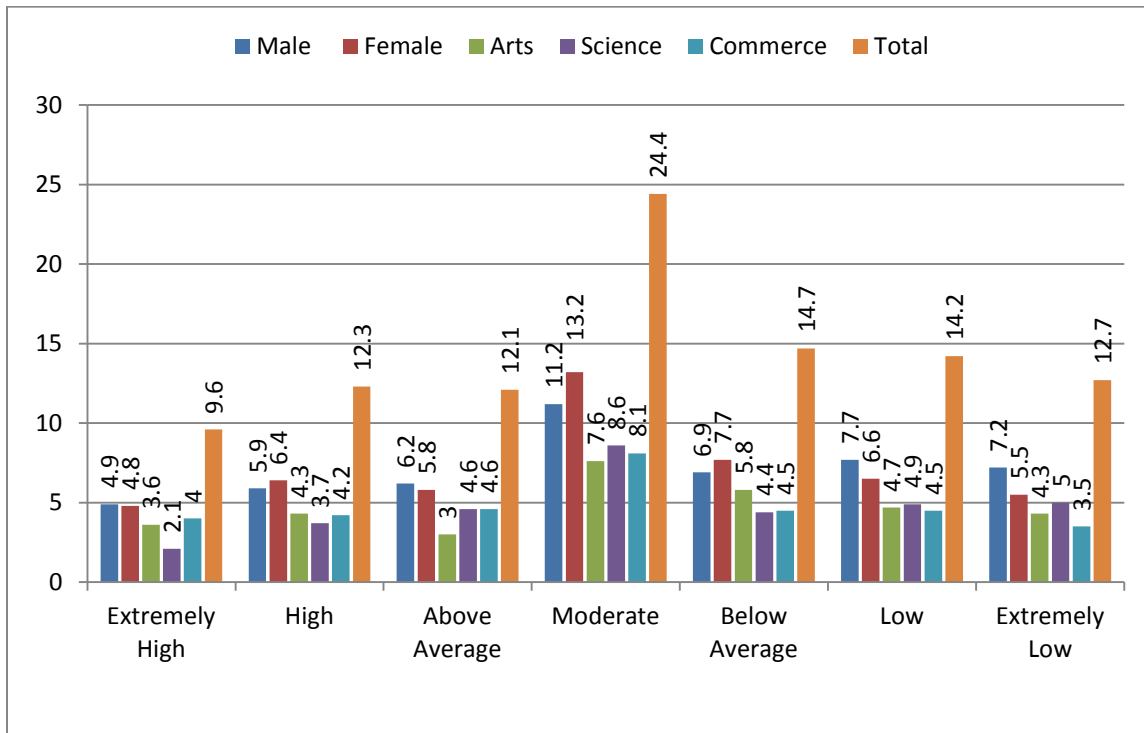
3.2.2.2. Levels of self-efficacy among university students

The objective 2 of the present study was to explore the level of self-efficacy among university students. This section deals with the data analysis relating to the self-efficacy among university students based on gender, streams and overall sample distribution. The detailed analysis is given in Table 3.7.

TABLE 3.7: LEVELS OF SELF EFFICACY AMONG UNIVERSITY STUDENTS

GROUPS			LEVELS OF SELF EFFICACY			Total
			High	Average	Poor	
Gender	Male	Number	29	295	252	576
		%	2.6	25.6	21.8	50.0
	Female	Number	34	312	230	576
		%	2.9	27.1	20.0	50.0
Stream	Arts	Number	14	218	152	384
		%	1.2	19.0	13.1	33.3
	Science	Number	24	233	127	384
		%	2.2	20.2	11.0	33.4
	Commerce	Number	19	214	151	384
		%	1.6	18.5	13.2	33.3
Total		Number	74	617	461	1152
		%	**6.4**	**53.5**	**40.1**	**100**

Table 3.7 shows the data relating to the percentage wise representation of university students in different level of self-efficacy. The table 3.7 is preceded by showing the number and percentage of university students distributed in different levels of self-efficacy on the basis of gender and stream category.

A look at the table 3.7 shows the gender wise distribution of university students, 2.6% male university students and 2.9% female university students possess high level of self-efficacy. It is also observed that 25.6% male university students and 27.1% female university students possess average level of self-efficacy. Further 21.8% male university students and 20.0% female university students possess poor level of self-efficacy. So, male as well as female student falls under average level of self-efficacy.

Further, table 3.7 shows stream wise distribution of university students, 1.2% arts students, 2.2% science student's and 1.6% commerce students possess high level of self-efficacy. Similarly 19.0% arts students, 20.2% science student's and 18.5% commerce

students possess average level of self-efficacy. It also observed that 13.1% arts student, 11.0% science student's and 13.2% commerce students possess poor level of self-efficacy. So arts, science as well as commerce students fall under average level of self-efficacy.

In total, 6.4% university students falls under high level of self-efficacy, 53.5% falls under average level, 40.1% falls under poor level of self-efficacy. Thus overall most of the university students fall under the average level of self-efficacy. For further understanding refer to Figure 3.2 showing graphical representation of level of self-efficacy of university students.

FIGURE 3.2: GRAPHICAL REPRESENTATION OF LEVEL OF SELF EFFICACY OF UNIVERSITY STUDENTS
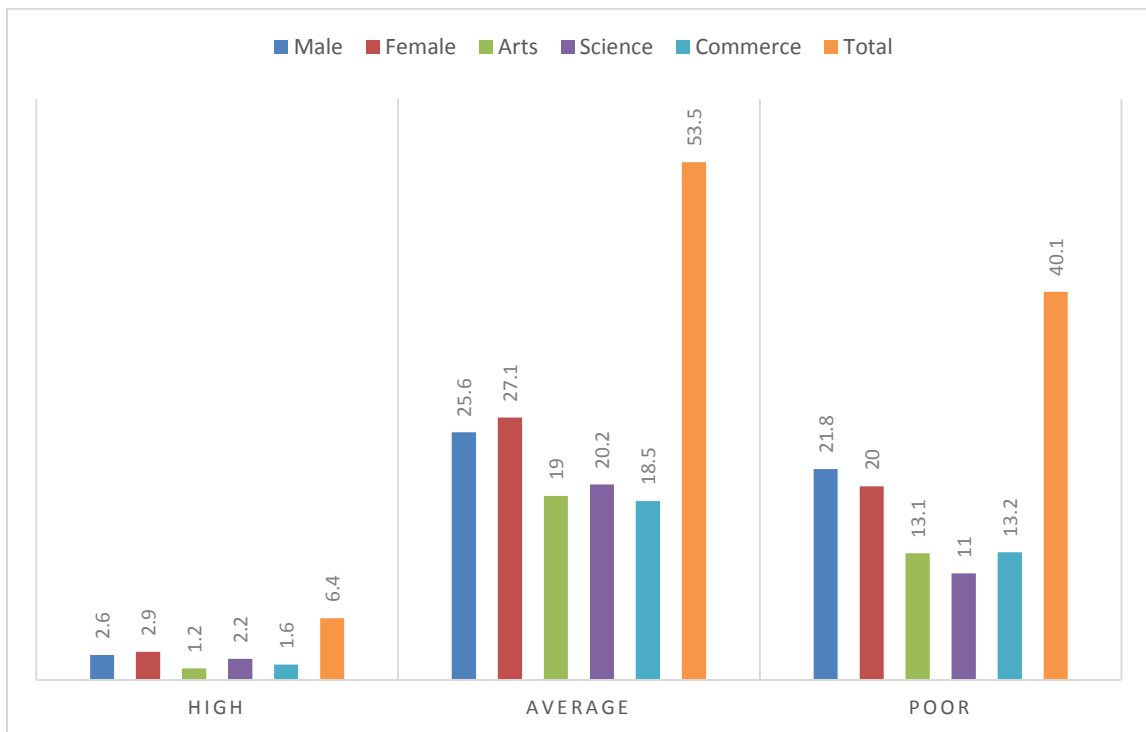
SECTION 3

3.3. CORRELATION ANALYSIS

3.3.1. Relationship of social networking usage with academic procrastination and performance among university students

Relationship between social networking usage with academic procrastination and performance among university students has been analysed separately under the following headings.

3.3.1.1. Correlation between social networking usage with academic procrastination among university students

3.3.1.2. Correlation between social networking usage with performance among university students

3.3.1.1. Correlation between social networking usage with academic procrastination among university students

The present study conducted to find out the relationship between social networking usage with academic procrastination among university students. In order to achieve this, the Pearson's product moment correlation was constructed and examined to see how measured variable correlated with the other variable in the study. Investigation of the correlation between social networking usage and academic procrastination are presented in the Table 3.8.

TABLE 3.8: CORRELATION BETWEEN SOCIAL NETWORKING USAGE AND ACADEMIC PROCRASTINATION AMONG UNIVERSITY STUDENTS

DEPENDENT VARIABLES	INDEPENDENT VARIABLES
	Social Networking Usage
Academic Procrastination	.179**

**Significant at 0.01level

The statistical outcome in table 3.8 shows the coefficient of correlation between academic procrastination and social networking of university students. Examination of the correlation matrix reveals that social networking usage has the highest correlation with the academic procrastination (r=.179**, p<.01). So it reveals that significant correlation is found between social networking usage with academic procrastination among university students. Thus, the hypothesis no. (1), "there exists no significant relationship between social networking usage with academic procrastination among university students" is rejected. So thus there exists significant positive relationship between social networking usage with academic procrastination among university students. Thus it can be interpreted that excess use of social networking usage increases students' academic procrastination.

DISCUSSION ON RESULTS

The analysis of the results gives some significant results. Based on the findings of the hypothesis high correlations were found between independent and dependent variables. The high correlations may indicate that a higher usage of social networking increases academic procrastination. The results indicate a number of different justifications. For instance, students unluckily use filthy websites, online games, internet surfing services, and chat rooms, sleeping late initiated by spending too much time on the websites rather than undertaking creative activities. This matter directed to academic failure. Permanent use of social networking can lead to procrastination, loss of time and distraction (Ozer et al., 2013; & Karpinski et al., 2013). In similar line the students of current time face many distractions through gaming, social networking addiction, online games and other stuff which snip their time. The most highly object for students can be referred to social networking, and it adds to their academic procrastination (Andreassen, 2015). Also there are various researches which support the results like Derakhsh, et al., (2018); & Rashmei, et al., (2016). Otherwise there are lot of advantages from using social networking contains improving reading skills sharing ideas and information. Despite the

benefits of usage of students in social networks, its misappropriation could impact the academic life of the students and their academic performance.

Further, the students who are most concerned with academic, that their social media usage does not affect their academic work at all. The results of the research can be practically implied through the effort in endorsing social networking usage among academic students that can lead to the increase in the knowledge about social networking and can lead to other academic enhancement. It can help in producing the information for the educationists and the government officials to understand internet users and to provide the framework or policy to indulge in social networking users' necessities efficiently.

So it can be concluded that a lot of opportunities are provided by the social networking sites for education that can be utilized by everyone around the world. But students, who are hefty users, should restrain the use of any social networking sites to avoid addiction and create a balance between their offline and online lives while using the sites, so that they can decrease their academic procrastination by social networking usage. The use of social networking sites must avoid and limit during the instruction hours to prevent them from distracting in the school and universities. To avoid addiction of social networking sites students must not spent too much time on watching movies and online games it can distract them from academic activities.

3.3.1.2. Correlation between social networking usage with performance among university students

The present study attempted to find out the relationship between social networking usage with performance among university students. In order to achieve this, the Pearson's product moment correlation was constructed and examined to see how measured variable correlated with the other variable in the study. Investigation of the correlation between social networking usage with performance is presented in the Table 3.9.

TABLE 3.9: CORRELATION BETWEEN SOCIAL NETWORKING USAGE AND PERFORMANCE AMONG UNIVERSITY STUDENTS

DEPENDENT VARIABLES	INDEPENDENT VARIABLES
	Social Networking Usage
Performance	.086**

**Significant at 0.01 level

The statistical outcome in table 3.9 shows the coefficient of correlation between total score of performance with total score of social networking usage of university students. Viewing the entries in above mentioned table shows that performance was positively and significantly related with social networking usage (r=.086**). So it reveals that significant correlation is found between social networking usage with performance among university students. Thus the hypothesis no. (2), "there exists no significant relationship between social networking usage with performance among university students" is rejected. So thus there exists significant positive relationship between social networking usage with performance among university students.

DISCUSSION ON RESULTS

The results from the present research seem to support the findings that social networking usage is positively related with student performance. Examination of results recommends a number of different justifications. Social network positively impacts on students' performance in academics as it provides students with the multiple collaborative tools to take advantages and it also aids in information and knowledge distribution. Social networking also inculcates e-learning skills to the students which help them to improve in their academia. It is a very supportive tool in the hands of students. Emeka, et.al (2016) examined that the use of Internet is an essential platform for students to increases their and capability and skills which will support them in professional life and in academics. Numerous studies have been done by different investigators to measure how the use of social networking influences student's academic performance. Some

studies as Kist (2008); Choney, (2010); Jacobsen & Forste, (2011); MehMood & Taswir, (2013), corroborated that the use of Information Communication Technology like internet is one of the most significant aspect that can impact educational performance of students negatively or positively.

The results of this study have support from different researches like Maqableh, et.al (2015) concluded that there exists positive relationship between social networking and academic performance. Ahmed, et.al (2011) states that social networking sites does not have an contrary effect on their academic performance. However, investigators have found a positive effect that social networking usage has on student's academic performance. Various studies indicate that Facebook usage and its positive effect on academic performance (Tuan & Tu, 2013; & Junco, 2012a). Another study is conducted by Tamayo, et.al (2017) found that there exists positive relationship between social media and academic performance. Moreover, it was observed by various researchers that a negative influence of social networking sites usage on academic performance could happen (Paul, et.al 2012 & Wentworth, et.al 2014) while others confess that social networking sites eternal usage is time consuming and can lead to academic procrastination and distraction (Karpinski, et.al 2013; & Ozer, et.al 2013). It describes that many parents are nervous that students now devote too much time on Facebook and other social networking sites and do not have enough time to study.

Social networking usage has become a unique global tendency which has feasted its reach to almost every corner of the world. The use of social networking sites have evolved and exploded into a virtual platform where people share lot of information's, discuss with each other, watch different types of videos, play games etc. because of its speed and reach, ease of use. Among the prominent users of the social networking are the students. In conclusion we can say that social networking has become very familiar all around the world due to a great expansion of technology in recent years. Students across all walks of life make use of social networking sites, but it depends on the students how he or she utilizes it whether for academic purpose, entertainment or some other issue. Moreover, proper time management, more value of time will the aim to enhance the

quality of life, so that social networking sites usage did not affect students' grades or marks.

SECTION 4

3.4 COMPARATIVE ANALYSIS

The third objective of the study is **"To find out the significant differences among university students in their social networking usage, academic procrastination, performance, self-efficacy and metacognitive beliefs on the basis of gender and stream".** In order to examine the significant differences on mean scores of social networking usage, academic procrastination, performance, self-efficacy and metacognitive beliefs, two-way analysis of variances (ANOVA) has been applied. The analysis of variables has been done using two categorical variables viz: gender and stream i.e. male and female; 3 types of stream (Arts, Science and Commerce). The Table 3.10 represents sample distribution based on subgroups of variables.

TABLE 3.10: DISTRIBUTION OF SAMPLE WITH RESPECT TO GENDER AND STREAM.

VARIABLE	CATEGORY	LABEL	N
Gender	1	Male	576
	2	Female	576
TOTAL			**1152**
Stream	1	Arts	384
	2	Science	384
	3	Commerce	384
TOTAL			**1152**

3.4.1. COMPARISON OF SOCIAL NETWORKING USAGE, ACADEMIC PROCRASTINATION, PERFORMANCE, SELF-EFFICACY AND METACOGNITIVE BELIEFS OF UNIVERSITY STUDENTS WITH RESPECT TO GENDER AND STREAM

In order to measure the significant differences on the scores of social networking usage, academic procrastination, performance, self-efficacy and metacognitive beliefs, two-way analysis of variances (2x3 factorial design involving 2 types of gender i.e. male and female and 3 types of stream i.e. Arts, Science and Commerce) was applied. The data relating to social networking usage has been analysed by using analysis of variance as given below:

3.4.1.1. COMPARISON BETWEEN SOCIAL NETWORKING USAGE AMONG UNIVERSITY STUDENTS ON GENDER AND STREAM

3.4.1.1.1. SUMMARY OF 2X3 ANALYSIS OF VARIANCE (ANOVA) ON THE SCORES OF SOCIAL NETWORKING USAGE WITH RESPECT TO GENDER AND STREAM

To study the main effect of gender and stream along with their interaction effect on social networking usage, analysis of variance 2x3 factorial design involving 2 types of gender i.e. male and female and 3 types of stream i.e. Arts, Science and Commerce was applied on mean scores of social networking usage. Descriptive statistical results for social networking usage of university students are presented in Table 3.11.

TABLE 3.11: DESCRIPTIVE STATISTICS OF SOCIAL NETWORKING USAGE WITH RESPECT TO GENDER AND STREAM

Gender	Stream	Mean	SD	N
Male	**Arts**	50.97	9.38	201
	Science	51.52	10.36	189
	Commerce	53.13	9.43	186

	Total	51.85	10.76	576
Female	**Arts**	51.64	9.33	183
	Science	51.88	9.97	195
	Commerce	51.86	10.72	198
	Total	51.80	10.02	576
Total	**Arts**	51.29	9.35	384
	Science	51.70	10.15	384
	Commerce	52.48	10.12	384
	Total	51.82	9.89	1152

In order to analyse the variance of social networking usage among male and female university students from three stream i.e. Arts, Science, and Commerce, 2x3 ANOVA was applied and the results are presented in the Table 3.12.

TABLE 3.12: SUMMARY OF 2X3 ANALYSIS OF VARIANCE (ANOVA) OF SOCIAL NETWORKING USAGE WITH RESPECT TO GENDER AND STREAM

Source	Sum of Squares	Df	Mean square	F	Sig.
Gender	1.88	1	1.88	.019	.890
Stream	282.45	2	141.22	1.444	.236
Gender * Stream	210.42	2	105.21	1.076	.341
Error	112092.53	1146	97.81		
Total	3206412.00	1152			

Significant at *0.05 & **0.01 level of significance.

MAIN EFFECTS

GENDER

It is clear from the Table 3.12 that the F-ratio for the differences between social networking usage of male and female university students is $F(1,1146) = .019$, p = .890,

which is found insignificant at the 0.05 level of significance. The results indicate that male and female university students do not differ significantly in their social networking usage. Therefore the data does not provide sufficient evidence to reject the null hypothesis no. (3), "There exists no significant difference between male and female university students in their social networking usage". This indicates that university students both male and female do not differ significantly on the scores of 'social networking usage'. So it means that both male and female equally engage themselves in social networking usage.

From examining the results in the means on Table 3.11, it is found that male university students scored (Mean = 51.85, SD = 10.76) and female university students scored (Mean = 51.80, SD = 10.02) on social networking usage have approximately same mean score. This means that male as well as female have same pattern of social networking usage.

STREAM

It is clear from the Table 3.12 revealed that the calculated F-ratio for the differences of streams between social networking usage of university students came out to be F (1, 1146) = 1.44, p = .236, which is found insignificant at 0.05 level of significance. The results revealed that students of different streams i.e. art, science and commerce do not differ significantly in their social networking usage. Therefore the data do not provide sufficient evidence to reject the null hypothesis no. (4), "There exists no significant difference in social networking usage among university students on the basis of stream". This indicates that university students of different streams do not differ significantly on the scores of 'social networking usage'.

Although the mean difference shows that there exists a difference but this may be due to chance factor as it shows that arts and science students scored low mean value (51.29 and 51.70) regarding social networking usage as compared to mean value (52.48) of commerce university students.

INTERACTION EFFECT

Gender x Stream

It is clear from the Table 3.12 that the F-ratio for the interaction between gender and stream of university students on social networking usage is F (1, 1146) = 1.076, p = .341, which is found insignificant at 0.05 level of significance. The results indicate the main effects of two groups among university students as a result of interaction of gender and stream differ significantly on their scores of social networking usage. Therefore the data does not provide sufficient evidence to reject the null hypothesis no. (5), "There is no significant interaction effect of gender and stream on social networking usage of university students". The results revealed that interaction between gender and stream does not differ significantly of university students on the scores of social networking usage.

DISCUSSION ON RESULTS

It can be interpreted from the results that there exists no significant difference between male and female university students in their social networking usage. It means both male and female university students have same usage of social networking. Investigation of results recommends a number of different justifications that social networking applications and sites as well as the number of students using them have witnessed a dramatic increase over the last decade and became an integral part of students' daily life because everyone have smart phones were more likely to both access social networking sites and devote time engaging with others. Technology has empowered both males and females to usage of social networking, thus creating the world smaller. Therefore, the advent of technologies has enabled students to interact with each other through the social networking sites even if they are miles away. It can be perceived that the social networking sites are not actually functioning like the traditional media. Male and female feel that they are empowered to a certain extent with social networking websites. It can be seen that the social networking sites are constantly developing by the increasing number of users and working on better service features.

Social networking now form part of student's lives, engage with each other and change the way of students.

It may interpret that social networking sites are very prevalent among students and is used by number of students on a daily and regular basis. Students have been utilizing important time on social networking for both non-academic and academic purposes. The uprising and quick expansion of the internet are changing every sphere of human activities be it the political, social, educational, and economic. The effective use of social networking websites between students has gone up because students familiarize to this new technology rapidly and it has become the greatest attractive and modern tools for involving students throughout the world. In addition social networking usage are quite easy to use, support informal learning practices with communication and interaction, maintain and establish spontaneous social contacts and relationships, reflect on daily life, analyze and share the continuously increasing information, allow fast updating, and assisting transfer of education. Our results are in the line with the results of other researchers (Raacke & Raacke, 2008; ul Haq, et al., 2012; Abdelraheem, 2013; Ahmed, 2016. Biernatowska, et al., 2017) found that there is no gender difference. In contradictory findings it is observed that male students use social networking more than their female counterparts (Valkenburg & Peter, 2009; Khan 2010; Manjunatha, 2013). Some studies conclude that female students are more active in information seeking and contributing to social networking than their male students (Rahman, 2014; Mansumitrchai, Park, & Chiu, 2012; Kiser & Porter, 2011; Benson et al., 2010; Burke 2010).

It is also concluded that three groups of streams does not differ significantly in their social networking usage. It can be interpreted that the social networking websites have become the most widespread and prominent platform of interaction used by the students. It has the capability to affect the students in their interpersonal, emotional, and intellectual domains invariably of gender, stream and other social aspects. It is also observed that social networking usage increased student's education prospects, improved creativity, nurtured cooperative learning, and endorsed for sharing communication and

interacting outside the classroom. Social networking usage affords a platform to contact teachers and peers from wherever they are. Social and creative learning processes can be occupied by the students that can lead them to explore beyond traditional and institutional education. Social networking provides facility for teachers to share projects, assignments, class notes, resources to be studied for class discussion involving online social networking usage with face-to-face traditional classrooms. That may be the reason for three groups of streams does not differ significantly in their social networking usage.

Findings revealed that interaction between gender and stream does not differ significantly of university students on the scores on social networking usage. So results revealed that interaction effect between gender and streams do not influence social networking usage of university students. It indicates that gender and sub groups of streams as a result of interaction have similar pattern of social networking usage, as they perceive social networking usage as a resource that increases their effectiveness, student efficiency, confidence productivity, and knowledge. In addition, social networking as the most popular platform has sustained to develop in popularity. It creates innovative methods of communiqué with family, friends and also improving learning motivation. It also offers innovative and novel ways to interconnect with other students in a rapid manner. Its communication affords students with faster and easier ways of communication.

3.4.1.2. COMPARISON BETWEEN ACADEMIC PROCRASTINATION AMONG UNIVERSITY STUDENTS ON GENDER AND STREAM

3.4.1.2.1. SUMMARY OF 2X3 ANALYSIS OF VARIANCE (ANOVA) ON THE SCORES OF ACADEMIC PROCRASTINATION WITH RESPECT TO GENDER AND STREAM

To study the main effect of gender and stream along with their interaction effect on academic procrastination, analysis of variance (2x3 factorial design involving 2 types of gender i.e. male and female, and 3 types of Stream i.e. Arts, Science and Commerce)

was applied on mean scores of academic procrastination. Descriptive statistical results for academic procrastination of university students are provided in Table 3.13.

TABLE 3.13: DESCRIPTIVE STATISTICS OF ACADEMIC PROCRASTINATION WITH RESPECT TO GENDER AND STREAM

Gender	Stream	Mean	SD	N
Male	**Arts**	79.80	24.25	201
	Science	80.24	22.34	189
	Commerce	83.28	25.12	186
	Total	81.07	23.94	576
Female	**Arts**	85.41	24.93	183
	Science	80.62	22.68	195
	Commerce	86.32	23.45	198
	Total	84.10	23.77	576
Total	**Arts**	82.47	24.71	384
	Science	80.43	22.48	384
	Commerce	84.85	24.29	384
	Total	82.58	23.89	1152

In order to analyse the variance of academic procrastination among male and female university students from three stream i.e. Arts, Science, and Commerce. The obtained scores were subjected to ANOVA and the results have been presented in the Table 3.14.

TABLE 3.14: SUMMARY OF 2X3 ANALYSIS OF VARIANCE (ANOVA) OF ACADEMIC PROCRASTINATION WITH RESPECT TO GENDER AND STREAM

Source	Sum of Squares	Df	Mean square	F	Sig.
Gender	2600.01	1	2600.01	4.58	.032*
Stream	3668.05	2	1834.02	3.23	.040*

Gender * Stream	1317.38	2	658.69	1.16	.313
Error	649598.71	1146	566.84		
Total	8514079.00	1152			

Significant at *0.05 & **0.01 level of significance.

MAIN EFFECTS

GENDER

It is clear from the Table 3.14 that F-ratio for the differences between academic procrastination of male and female university students is $F(1,1146) = 4.58$, p = .032, which is found significant at the 0.05 level of significance. The results indicate that male and female university student differ significantly in their academic procrastination. Therefore the data provides sufficient evidence to reject the null hypothesis no. (6), "There exists no significant difference between male and female university students in their academic procrastination". This indicates that university student's male and female differ significantly on the scores on 'academic procrastination.

It is quite evident from the table 3.13 that the mean value (84.10) of female students regarding academic procrastination is quite higher in comparison to male (81.07) university students. This means that female students are more involved in academic procrastination as compared to male students.

STREAM

It has been observed from the Table 3.14, that calculated F-ratio for the differences of streams between academic procrastination of university students came out to be $F(1,1146) = 3.23$, p = .040, which is found significant at 0.05 level of significance. The results revealed that students of different stream i.e. arts, science and commerce differ significantly in their academic procrastination. In order to find out the significant differences between mean scores of various groups of university students i.e. students of arts, science and commerce stream, Tukey's post-hoc HSD test was applied and results has been documented in Table 3.15.

TABLE 3.15: SUMMARY OF TUKEY'S POST-HOC HSD TEST WITH RESPECT TO ACADEMIC PROCRASTINATION OF UNIVERSITY STUDENTS PURSUING IN VARIOUS STREAMS

(I) Stream	(J) Stream	Mean Difference (I-J)	Std. Error	Sig.
Arts	Science	2.04	1.718	.461
Arts	Commerce	2.18	1.718	.350
Science	Commerce	4.42*	1.718	.028*

Significant at *0.05 & **0.01 level of significance.

Table 3.15 reveals that the p-value of mean differences between students of arts and science stream (p = .461) is found insignificant at 0.5 level of significance for academic procrastination. Similarly the mean differences between students of arts and commerce stream (p = .350) is found insignificant at 0.5 level of significance for academic procrastination, While as mean difference between students of science and commerce stream (p = .028) are found significant at 0.05 level of significance for academic procrastination. From the results it has come out that university students of arts stream do not differ significantly in their academic procrastination from students of science and commerce stream. However, the university students of science stream differ significantly in their academic procrastination from students of commerce stream. From the Table 3.13 it is clear that university students of commerce stream had scored more on academic procrastination, meaning there by that students of commerce stream have more academic procrastination as compared to students of arts and science stream (Figure 3.3). Therefore in the light of post-hoc analysis the null hypothesis no. (7), "There exists no significant difference in academic procrastination among university students on the basis of stream", is partially accepted and partially rejected.

Figure 3.3: Mean scores of Academic Procrastination of university students of arts, science and commerce stream.
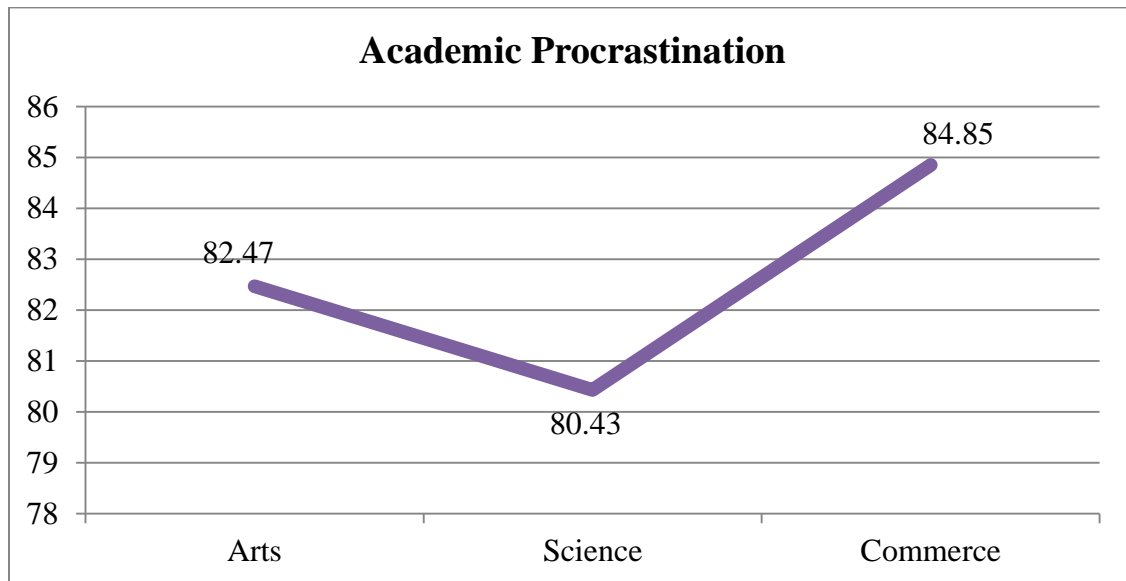
INTERACTION EFFECT

Gender x Stream

It has been observed from the Table 3.13, that the F-ratio for the interaction between gender and stream of university students on academic procrastination is $F(1,1146) = 1.16$, p = .313, which is found insignificant at 0.05 level of significance. The results indicate the main effects i.e. gender and stream functions independently. Therefore the data does not provide sufficient evidence to reject the null hypothesis no. (8), "There is no significant interaction effect of gender and stream on academic procrastination of university students". The results revealed that interaction between gender and stream does not differ significantly of university students on the scores on academic procrastination.

DISCUSSION ON RESULTS

The results from the present research seem to support the findings that gender and stream significantly differ in academic procrastination behavior. In considering the

findings collected within the empirical research, it found that there were significant differences between males and females in academic procrastination. The result indicates that females' academic procrastination is quite higher in comparison to male counterparts.

Examination of findings suggests a number of diverse explanations may be-females' procrastination significantly more than males in academic settings. It may be due to the fact that females have low confidence because the females who is not confident of herself and thinks that she has not the ability to perform a particular task is more likely to delay. Females may have poor time management skills, inability to concentrate, fear of failure, personal characteristics like responsibility, discomfort regarding tasks, inability to orient objectives of success, and anxiety. They carry a belief about their fruitful performance that it can have negative significances like unpopularity be a reduced feel of being feminine. Most of the females don't know how to do a task, they can seem irresistible and they don't know where to start. So, they end up laying the entire task off, and not doing effort how to do a task by taking some sort of help from others. So at the end they become high procrastinators.

Moreover, when a task seems very time-consuming or complex, even discerning about it can look stressful and scary. So, females usually fall into the trap of laying it off. Further, due the high procrastination students tend to lose their focus and feel stunned by the allocated work and are not able to compose the tasks very well at hand. Procrastination makes the students more venerable to swapping assignment and more annoyed with the tasks. Female students who are into procrastination tend to feel more incapable and annoyed with the tasks in hand. Students can choose from different options, but they are incapable of doing so which results in the task delay. Students especially females are devoted with several tasks in their life. Due to certain extra responsibilities they incline to fail or forget to finish their tasks. In today's educational setting students in universities are bound to involve with several tasks in a small period. For occurrence, preparation for seminar presentation, attending the internal as well external examination for different subjects, writing assignment and so on. In these

surroundings, procrastination appears and females tend to delay their educational task. At the same time, several students intentionally delay their task due to their laziness and lack of interest. Our results are in the line with the results of other researchers (Lakshminarayan, et al., 2013; Khan, Arif, Noor, & Muneer, 2014; Ozer, Demir & Ferrari 2009; Vijay, et al., 2016) stating that there is gender difference in academic procrastination. But some studies assertion that procrastination behavior is perceived more in male students than female counterparts (Senecal et al., 1995; Prohaska et al., 2000; Balkis, 2006). Moreover, in contradictory to our results Iskender, (2011) shows that there exists no difference in academic procrastination.

It is also concluded that three groups of streams differ significantly in their academic procrastination. The result shows that commerce students are more involved in academic procrastination behavior as compare to students of arts and science streams and same is confirmed by the Tukey's Post-Hoc analysis. Students from commerce stream reported higher levels of academic procrastination. There may be number of possible clarification that commerce students have a deep-rooted fear of failure, low energy level, lack of focus, lack of motivation and low self-confidence. Commerce students frequently delay because they don't see how an assignment is important or relevant to them, don't know how to get started, or don't recognize the material. When you boil it down, procrastination is a combination of motivation, confidence, and comprehension issues.

It can be interpreted that when commerce students are confused by a task, or don't know exactly how to do, they frequently postpone the task in expectations that they will comprehend it better later. This is particularly difficult for students who are not comfortable with unknown or uncertainty circumstances. Another reason for that is time management which is when it comes to guessing how much time it will take to complete an assignment. Students usually overemphasize the total amount of time they have left to finish assignments and depreciate the amount of time it will take to finish them. Subsequently, they fail to leave themselves sufficient time to finish the task. The results are coherent with other researches (Roy, 2016) concluded there exists significant difference in academic procrastination on the basis of different streams. Moreover, the

results are in line with the results of other research like Clariana (2013) found that the economic students in universities score higher in academic procrastination. Another study by Vijay et al. (2016) concluded that arts stream have higher level of academic procrastination than science students. But on contrary, Dash et al. (2018) found that there is no significant difference in academic procrastination on the basis of different streams.

Results revealed that interaction between gender and stream does not differ significantly of university students on the scores of academic procrastination. So results revealed that interaction effect between gender and streams do not influence academic procrastination of university students. It indicates that gender and sub groups of streams as a result of interaction have similar type of time management, sincerity, confidence, self-esteem and personal initiative.

3.4.1.3. COMPARISON BETWEEN PERFORMANCE AMONG UNIVERSITY STUDENTS ON GENDER AND STREAM

3.4.1.3.1. SUMMARY OF 2X3 ANALYSIS OF VARIANCE (ANOVA) ON THE SCORES OF PERFORMANCE WITH RESPECT TO GENDER AND STREAM

To study the main effect of gender and stream along with their interaction effect on performance, analysis of variance (2x3 factorial design involving 2 types of gender i.e. male and female and 3 types of Stream i.e. Arts, Science and Commerce) was applied on mean scores of performance. Descriptive statistical results for performance of university students are shown in Table 3.16 below.

TABLE 3.16. DESCRIPTIVE STATISTICS OF PERFORMANCE WITH RESPECT TO GENDER AND STREAM

Gender	Stream	Mean	SD	N
Male	Arts	305.42	85.74	201
	Science	293.54	89.49	189
	Commerce	295.32	83.35	186
	Total	297.93	86.23	576

Female	**Arts**	290.01	92.66	183
	Science	282.33	83.37	195
	Commerce	288.02	82.09	198
	Total	286.85	86.24	576
Total	**Arts**	297.35	89.64	384
	Science	288.03	86.60	384
	Commerce	291.78	82.72	384
	Total	292.39	86.38	1152

In order to analyse the variance of performance among male and female university students from three stream i.e. Arts, Science, and Commerce. The obtained scores were subjected to ANOVA and the results are presented in the Table 3.17.

TABLE 3.17. SUMMARY OF 2X3 ANALYSIS OF VARIANCE (ANOVA) OF PERFORMANCE WITH RESPECT TO GENDER AND STREAM

Source	Sum of Squares	Df	Mean square	F	Sig.
Gender	36759.42	1	36759.42	4.93	.026*
Stream	18658.91	2	9329.45	1.25	.286
Gender * Stream	3152.24	2	1576.12	.21	.809
Error	8531655.66	1146	7444.72		
Total	107073228.00	1152			

Significant at *0.05 & **0.01 level of significance.

MAIN EFFECTS

GENDER

It is clear from the Table 3.17, that F-ratio for the differences between performance of male and female university students is $F(1,1146) = 4.93$, p = .026, which

is found significant at the 0.05 level of significance. The results indicate that male and female university student differ significantly in their performance. Therefore the data provides sufficient evidence to reject the null hypothesis no. (9), "There exists no significant difference between male and female university students in their performance". This indicates that university student's both male and female differ significantly on the scores on performance.

From reviewing the data in the means Table 3.16, it is found that male university students scored (Mean = 297.93) more as compared to female university students (Mean = 286.85) on performance. This means that male students have higher academic performance as compared to their female counterparts.

STREAM

It has been observed from the Table 3.17, revealed that calculated F-ratio for the differences of streams between performance of university students came out to be $F(1,1146) = 1.25$ p = .286, which is found insignificant at 0.05 level of significance. The results revealed that students of different stream i.e. art, science and commerce does not differ significantly in their performance. Therefore the data does not provide sufficient evidence to reject the null hypothesis no. (10), "There exists no significant difference in performance among university students on the basis of stream". This indicates that a university student of different streams does not differ significantly on the performance scores.

Although the mean difference shows that there exists a difference but this may be due to chance factor as it pertinent from the data that science and commerce students scored low mean value (288.03, and 291.78) regarding performance as compared to mean value (297.35) of arts university students.

INTERACTION EFFECT

Gender x Stream

It has been observed from the Table 3.17 that the F-ratio for the interaction between gender and stream of university students on performance is $F(1,1146) = .21$, p = .809, which is found insignificant at 0.05 level of significance. The results indicate the main effects i.e. gender and stream functions independently. Therefore the data does not provide sufficient evidence to reject the null hypothesis no. (11), "There is no significant interaction effect of gender and stream on performance of university students". The results revealed that interaction between gender and stream does not differ significantly of university students on the scores on performance.

DISCUSSION ON RESULTS

The results from the present research seem to support the conception that gender differ significantly in performance, and streams does not differ significantly in performance. In considering the findings collected within the empirical research, it was found that there were significant differences between males and females in performance. The result indicates that male students' performance is quite higher in comparison to their female counterparts.

A gender difference has played a vital role in assessing the attainment of students regardless of their education level. Examination of findings suggests a number of diverse explanations for male students' performance significantly more than females in academic settings. It may be due to the fact that male students in Jammu and Kashmir receive sufficient educational support from their parents because they believe good academic results will provide more carrier choice and job security. Male students have ability to perform a certain task as compared to female students. That means male students have high efficacy which influences behavior, motivation and level of performance.

It can be interpret that male students are self-regulated must go through particular approaches throughout their learning in order to achieve the essential academic

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objectives. Male students tend to use methods which are deemed suitable and favorable to achieve learning objectives and also keep an eye on the efficiency of the selected strategies or learning methods. If male students feel to achieve the required learning goals then both of the goals and learning strategies will be revised. Similarly if the learning goals are achieved by the male students then new goals will be set.

Education is definitely the highest tool and is conceived by learner for his personal improvement. Consequently all societies acquire education in one form or the other but the use in which it is put varies. Many years, the examinations of the aspects that impact academic performance of students have engrossed the attention and concern of researchers and teachers. Gender is raise to be one of the significant aspects influencing the academic performance over the last few eras. Our results are in the line with the results of other researchers (Vecchione et al., 2014; & Cortright et al., 2013) states that males and females differ in academic achievement. Moreover, in contradictory to our results showed that there exists no difference in performance (Goni 2015; Faisal et al., 2017; Akiri et al., 2009).

Results indicate that three groups of streams do not differ significantly in their performance. It can be interpreted that academic performance is the main pillar of growth for education. It is considered to be a vital goal for education in all the streams. It normally indicates the learning results of the student which requires a well-planned and organized series of experiences. Further, it can be assumed that student from different streams like arts, science and commerce have similar positive academic motivation, has the aspiration to study, likes education–associated tasks, and trusts that learning is essential. Positive academic motivation is associated to student's beginning of the task, their persistence in completing the task, and the amount of effort they devote on the task. Therefore, positive academic motivation not alone helps learners to achieve at a university but also supports them in seeing that learning is pleasing and significant in all features of lifespan. In addition arts, science and commerce students have their own significances and have given their importance to keep a balance in education. None can take the place of the other and will continue to contribute positively towards performance

in academics. In contrary Bai (2011) found that streams differ significantly on academic performance.

It is also revealed that interaction between gender and stream does not differ significantly of university students on the performance scores. Results revealed that interaction effect between gender and stream does not influence performance of university students. This shows that there is not significant joint effect of gender and stream on performance among university students. It indicates that gender and sub groups of streams as a result of interaction have similar type of academic performance.

3.4.1.4. COMPARISON BETWEEN SELF EFFICACY AMONG UNIVERSITY STUDENTS ON GENDER AND STREAM

3.4.1.4.1. SUMMARY OF 2X3 ANALYSIS OF VARIANCE (ANOVA) ON THE SCORES OF SELF EFFICACY WITH RESPECT TO GENDER AND STREAM

To study the main effect of gender and stream along with their interaction effect on self-efficacy, analysis of variance (2x3 factorial design involving 2 types of gender i.e. male and female and 3 types of Stream i.e. Arts, Science and Commerce) was applied on mean scores of self-efficacy. Descriptive statistical results for self-efficacy of university students are presented in Table 3.18.

TABLE 3.18. DESCRIPTIVE STATISTICS OF SELF EFFICACY WITH RESPECT TO GENDER AND STREAM

Gender	Stream	Mean	SD	N
Male	**Arts**	54.55	13.88	201
	Science	51.20	13.48	189
	Commerce	54.05	12.74	186
	Total	53.29	13.45	576
Female	**Arts**	52.50	9.63	183
	Science	49.38	10.18	195

	Commerce	51.76	10.95	198
	Total	51.19	10.35	576
Total	Arts	53.57	12.07	384
	Science	50.28	11.94	384
	Commerce	52.87	11.89	384
	Total	52.24	12.04	1152

In order to analyse the variance of self-efficacy among male and female university students from three stream i.e. Arts, Science, and Commerce. The obtained scores were subjected to ANOVA and the results have been presented in the Table 3.19.

TABLE 3.19. SUMMARY OF 2X3 ANALYSIS OF VARIANCE (ANOVA) OF SELF EFFICACY WITH RESPECT TO GENDER AND STREAM

Source	Sum of Squares	Df	Mean square	F	Sig.
Gender	1209.71	1	1209.71	8.48	.004*
Stream	2258.11	2	1129.05	7.91	.000**
Gender * Stream	11.03	2	5.518	.039	.962
Error	163438.38	1146	142.61		
Total	3310540.00	1152			

Significant at *0.05 & **0.01 level of significance.

MAIN EFFECTS

GENDER

It is clear from the Table 3.19, that F-ratio for the differences between self-efficacy of male and female university students is $F(1,1146) = 8.48$, p = .004, which is found significant at the 0.05 level of significance. The results indicate that male and female university student differ significantly in their self-efficacy. Therefore the data provides sufficient evidence to reject the null hypothesis no. (12), "There exists no

significant difference between male and female university students in their self-efficacy". This indicates that university student's male and female differ significantly on the self-efficacy scores.

From examining the results in the means Table 3.18, it is found that male university students scored (Mean = 53.29) more as compared to female university students (Mean = 51.19) on self-efficacy. This means that male students have more self-efficacy as compared to their female counterparts.

STREAM

It has been observed from the Table 3.19, that calculated F-ratio for the differences of streams between self-efficacy of university students came out to be $F(1,1146) = 7.91$ p = .000, which is found significant at 0.01 level of significance. The results revealed that students of different streams i.e. art, science and commerce differ significantly in their self-efficacy. In order to find out the significant differences between mean scores of various groups of university students i.e. students of arts, science and commerce stream, Tukey's post-hoc HSD test was applied and results has been documented in Table 3.20.

TABLE 3.20. SUMMARY OF TUKEY'S POST-HOC HSD TEST WITH RESPECT TO SELF EFFICACY OF UNIVERSITY STUDENTS PURSUING IN VARIOUS STREAMS

(I) Stream	(J) Stream	Mean Difference (I-J)	Std. Error	Sig.
Arts	**Science**	3.29**	.862	.000**
Arts	**Commerce**	.70	.862	.693
Science	**Commerce**	2.59*	.862	.008*

Significant at *0.05 & **0.01 level of significance.

Examination of the Table 3.20 reveals the p-value of mean differences between students of arts and science stream (p = .000) is found significant at 0.1 level of significance for self-efficacy. Similarly the mean differences between students of science and commerce stream (p = .008) is found significant at 0.5 level of significance for self-efficacy, While as mean difference between students of arts and commerce stream (p = .693) are found insignificant at 0.05 level of significance for self-efficacy. From the results it is clear that university students of arts stream do not differ significantly in their self-efficacy from students of commerce stream. Whereas, the university students of science stream differ significantly in their self-efficacy from students of arts and commerce stream. Therefore in the light of post-hoc analysis the null hypothesis no. (13), "There exists no significant difference in self-efficacy among university students on the basis of stream", is partially accepted and partially rejected. From the Table 3.18 it is clear that university students of arts and commerce stream had scored more on self-efficacy, meaning there by that students of arts and commerce stream have more self-efficacy as compared to students of science stream (Figure 3.4).

Figure 3.4: Mean scores of Self efficacy of university students of arts, science and commerce stream

INTERACTION EFFECT

Gender x Stream

It has been revealed from the Table 3.19, that F-ratio for the interaction between gender and stream of university students on self-efficacy is F (1, 1146) = .039, p = .962, which is found to be insignificant at 0.05 level of significance. The results indicate the main effects i.e. gender and stream functions independently. Therefore the data does not provide sufficient evidence to reject the null hypothesis no. (14), "There is no significant interaction effect of gender and stream on self-efficacy of university students". The results revealed that interaction between gender and stream does not differ significantly of university students on the scores on self-efficacy.

DISCUSSION ON RESULTS

The results from the present research seem to support the findings that gender and stream significantly differ in self-efficacy. In considering the findings collected within the empirical research, the result reveals that males and females in self-efficacy differ significantly. The result indicates that males self-efficacy is quite higher in comparison to female counterparts.

Examination of findings indicates that there are number of diverse explanations may be- males' self-efficacy significantly more than males in academic settings. It may be due to the fact that males have efficacy to determine or face of difficulties or aversive tasks, but girls have serious doubts about their competencies slacken their efforts or give up, whereas males have a strong sense of efficacy employ better effort to master the challenge. Male students have high determination usually produces high performance achievements. High efficacy students have more sense of competence which helps in cognitive processes and performances in a variety of settings, which includes the quality of decision making and academic attainment. Students who possess more self-efficiency choose to implement more difficult tasks, and tend to set themselves higher goals and stick to them. Moreover, male students have the capability to accomplish a certain task.

They have high efficacy which effects their motivation, thoughts, behavior and feelings. This means that a students with inner belief impacts decisions and personal abilities. Higher level of efficacy of male students helps them to determine the learning objectives as compared to that of female students with low self-efficacy. More usage of self-regulated learning strategy by the male students help in a more devise way to facilitate and improve their learning as compared to the students with low self-efficacy and lead them to good academic performance. Students with high efficacy tend to defend their problems and continue their actions of learning to understand the task. They will try to re-read the subject matter, ask questions on the teachers in the classroom or seek information from other sources. On the other hand students who show low self-efficacy tend to give up while facing the problems and try to stop their actions of learning to understand the subject matter, as the students are not sure of their abilities. Students face problems when they are indeterminate about their abilities. Their beliefs about their efforts being in vain tend to push them back every time they try to acquire the learning tasks. It can also interpreted that students who have high efficiency are well organized to take activities that are challenging and difficult, and attempt tougher to continue actions to attain education objectives than those with who have low self-efficacy. Thus it can be concluded that students who have high efficiency will have a noble self-regulation in academics, while as students who have low efficiency will have to tend weak regulation in academics. Our results are in the line with the results of other researchers (Fallan, et al., 2016) stating that there is gender difference in self-efficacy means that male have high efficacy as compared to female counterparts. But Kumar et al., (2006); & Sachitra et al., (2017) studied that females have high efficacy as compared to male students. But on contrary, Dash, & Mansor et al., (2013) concluded that self-efficacy on the basis of gender doesn't differ significantly.

In addition, results indicate that three groups of streams differ significantly in their self-efficacy. The result shows that arts students have high self-efficacy as compare to students of science and commerce streams. So arts students have high self-efficacy tend to feel confident about capabilities that with efforts, they achieve all targets, they are

confident on capabilities that can finish tasks on time, they achieve what they desire in any circumstance, they have enough self-confidence to finish any work, they face difficulties without any help and support, they try sincerely tend to confidently to succeed, they determined to succeed being able to achieve success and they work as per plan, and are able to reap results quickly.

Further, Tukey's Post-Hoc analysis shows that university students of arts stream do not differ significantly in their self-efficacy from students of commerce stream. Whereas, university students of science stream differ significantly in their self-efficacy from students of arts and commerce stream. It may be assumed that arts and commerce students persist longer, work harder, more readily, and have less contrary emotional reactions when they encounter problems than those who doubt their competences. They are more willing to study tasks, increase their determinations toward tasks and can improve more operative approaches against problems they encounter.

Moreover, results revealed that interaction between gender and stream does not differ significantly of university students on the scores on self-efficacy. So results revealed that interaction effect between gender and streams do not influence self-efficacy of university students. This shows that there is not significant joint effect of gender and stream on self-efficacy and are independent to explain self-efficacy among university students. It indicates that gender and sub groups of streams as a result of interaction have similar type of self-efficacy.

Thus it can conclude that self-efficacy shows a major and significant character in future and lives of students. The increase in self-efficacy will contribute a lot towards their achievement in life as well as in academics. Self-efficacy has the potential to guide human actions and behaviors. Students, who have high level of self-efficacy, will have more awareness about their learning, to regulate their own learning and to master their academic tasks. From this statement, it could be understood that self-efficacy can be described as the key factor of success. It is very essential in guiding learner's personnel and academic accomplishments.

3.4.1.5. COMPARISON BETWEEN METACOGNTIVE BELIEFS USAGE AMONG UNIVERSITY STUDENTS ON GENDER AND STREAM

3.4.1.5.1. SUMMARY OF 2X3 ANALYSIS OF VARIANCE (ANOVA) ON THE SCORES OF METACOGNTIVE BELIEFS WITH RESPECT TO GENDER AND STREAM

To study the main effect of gender and stream along with their interaction effect on metacognitive beliefs, analysis of variance (2x3 factorial design involving 2 types of gender i.e. male and female and 3 types of Stream i.e. Arts, Science and Commerce) was applied on mean scores of metacognitive beliefs. Descriptive statistical results for metacognitive beliefs of university students are presented in Table 3.21.

TABLE 3.21. DESCRIPTIVE STATISTICS OF METACOGNTIVE BELIEFS WITH RESPECT TO GENDER AND STREAM

Gender	Stream	Mean	SD	N
Male	**Arts**	56.07	6.47	201
	Science	56.37	7.60	189
	Commerce	55.80	7.89	186
	Total	56.08	7.32	576
Female	**Arts**	57.15	7.68	183
	Science	56.20	6.86	195
	Commerce	55.93	6.961	198
	Total	56.41	7.17	576
Total	**Arts**	56.59	7.08	384
	Science	56.28	7.22	384
	Commerce	55.87	7.41	384
	Total	56.25	7.24	1152

In order to analyse the variance of metacognitive beliefs among male and female university students from three stream i.e. Arts, Science, and Commerce. The obtained scores were subjected to ANOVA and the results have been presented in the Table 3.22.

TABLE 3.22. SUMMARY OF 2X3 ANALYSIS OF VARIANCE (ANOVA) OF METACOGNITIVE BELIEFS WITH RESPECT TO GENDER AND STREAM

Source	Sum of Squares	Df	Mean square	F	Sig.
Gender	34.67	1	34.67	.66	.417
Stream	107.91	2	53.95	1.02	.359
Gender * Stream	80.99	2	40.49	.77	.463
Error	60229.25	1146	52.55		
Total	3704883.00	1152			

Significant at *0.05 & **0.01 level of significance.

MAIN EFFECTS

GENDER

It is clear from the Table 3.22, that F-ratio for the differences between metacognitive beliefs of male and female university students is $F(1,1146) = .66$, $p = .417$, which is found insignificant at 0.05 level of significance. The results indicate that male and female university students do not differ significantly in their metacognitive beliefs. Therefore the data does not provide sufficient evidence to reject the null hypothesis no. (15), "There exists no significant difference between male and female university students in their metacognitive beliefs". This indicates that university student's male and female do not differ significantly on the scores on metacognitive beliefs.

From examining the data in the means Table 3.21, it is found that male university students scored (Mean = 56.08, SD = 7.32) and female university students scored (Mean = 56.41, SD = 7.17) on metacognitive beliefs have approximately same mean score. This means that male as well as female have same metacognitive beliefs.

STREAM

It has been perceived from the Table 3.22, that calculated F-ratio for the differences of streams between metacognitive beliefs of university students came out to be $F(1,1146) = 1.02$, $p = .359$, which is found insignificant at 0.05 level of significance. The results revealed that students of different stream i.e. arts, science and commerce do not differ significantly in their metacognitive beliefs. Therefore the data do not provide sufficient evidence to reject the null hypothesis no. (16), "There exists no significant difference in metacognitive beliefs among university students on the basis of stream". This indicates that university students of different streams do not differ significantly on the scores on metacognitive beliefs.

Although the mean difference shows that there exists a difference but this may be due to chance factor as it shows that commerce and science students scored low mean value (55.87 and 56.28) regarding metacognitive beliefs as compared to mean value (56.59) of arts university students.

INTERACTION EFFECT

Gender x Stream

It has been observed from the Table 3.22, that F-ratio for the interaction between gender and stream of university students on metacognitive beliefs is $F (1, 1146) = .77$, $p = .463$, which is found insignificant at 0.05 level of significance. The results indicate the main effects i.e. gender and stream functions independently. Therefore the data does not provide sufficient evidence to reject the null hypothesis no. (17), "There is no significant interaction effect of gender and stream on metacognitive beliefs of university students". The results revealed that interaction between gender and stream does not differ significantly of university students on the metacognitive beliefs scores.

DISCUSSION ON RESULTS

The results from the present research seem to support the findings that gender, and stream doesn't differ significantly in metacognitive beliefs. In considering the findings collected within the empirical research, it found that there were insignificant differences between males and females in metacognitive beliefs. The result indicates that male students as well as female students have same metacognitive beliefs.

Examination of findings indicates that there are number of diverse explanations for male and female students and doesn't differ in metacognitive beliefs. It may be due to the fact that both male and female students understand and control the cognitive processes like positive beliefs, cognitive reliance and need to control opinions in making necessary decisions for starting and completion of a task, further they have knowledge about the usage and timing of particular strategies for commencement, control, coordination, selection, evaluation and completion of a problem. Moreover, both male and female students monitor and adapt their learning strategies through selective strategy use, and setting goals. They have to employ cognitive tools to increase their educational achievement. They have to monitor, plan and modify their cognition must be accompanied by motivation to succeed. So both male and female students are active participants in the learning process. Our results are in the line with the results of other researchers (Chaudhary, 2017) stating that there is no gender difference in metacognitive beliefs. But on contrary, Bilasa, (2013) found that there is significant difference in metacognitive beliefs on the basis of gender.

Findings indicate that three groups of streams do not differ significantly in their metacognitive beliefs. It can be interpreted that three group of streams like arts, science and commerce have positive beliefs, cognitive confidence, cognitive self-consciousness and control thoughts. Therefore, students with a penetrating feeling of concern often believe that worries are helpful coping strategies and more concerned about the chain of tasks. They control their thinking process like as orientation, planning, monitoring, testing, repairing, evaluating, reflecting etc. Student's regulatory competence always

improves the performance in different ways like better use of cognitive resources which include attention, better use of strategies and a greater awareness of comprehension breakdowns.

Moreover, results revealed that interaction between gender and stream does not differ significantly of university students on the scores on metacognitive beliefs. So results revealed that interaction effect between gender and streams do not influence metacognitive beliefs of university students. This shows that there is not significant joint effect of gender and stream on metacognitive beliefs and are independent to explain metacognitive beliefs among university students. It indicates that gender and sub groups of streams as a result of interaction have similar type of metacognitive beliefs. That means they have similar planning, self-instruction, self-control, monitoring, comprehension problem solving, and personality development and evaluating progress towards a completion of task.

SECTION 5

3.5 STRUCTURAL EQUATION MODELING

To examine the role of self-efficacy and metacognitive beliefs on the relationship of social networking usage with academic procrastination and performance among university students a structural equation modeling approach has been used. Structural equation modeling is a statistical methodology which implies a confirmatory approach to the analysis of structural theory which bears on some phenomenon. Generally, the theory represents "causal" processes which generate multiple variables observations (Bentler, 1988). The term structural equation modeling gives two important aspects of the procedure: (a) A series of structural (i.e., regression) equations represent casual processes which are under study. (b) To achieve a clear conceptualization of the theory structural relations need to be modeled pictorially. The hypothesized model can simultaneously analyzed and tested statistically of the entire system of variables to determine the extent to which it is consistent with the data. The model argues for the plausibility of postulated

relations among variables of goodness-of-fit is adequate; but if it is inadequate the tenability such relations is rejected. Structural equation modeling is therefore used to make an analysis of complex models with multiple variables. It also helps to judge whether a model fits the data besides calculating path estimates (Muijs 2004).

Statistical Analyses

One element of structural equation modeling (i.e. path analysis) was applied using AMOS to test the proposed model. AMOS was used to test the hypothesized theoretical model (Figure 1.1) via observed and latent variable path analysis using maximum likelihood parameter estimation. The statistical method of structural equation modeling was used to estimate the role of self-efficacy and metacognitive beliefs on the relationship of social networking usage with academic procrastination and performance among university students. The fit of the model was assessed by considering the model's chi square ($\chi 2$), CFI (comparative fit index), AGFI (Adjusted Goodness-of-Fit Index), GFI (goodness of fit index), RMSEA (Root Mean Square of Error Approximations), and fit indices. The criteria for a good fit are as follows: $\chi 2/df < 3$, a non-significant $\chi 2$ (p>0.05), GFI> 0.90, AGFI> 0.90 (Fan & Sivo, 2005; Hu & Bentler, 1999; Kline, 2005), RMSEA < 0.08, CFI > 0.90 (Hakanen et al., 2007), or RMSEA < 0.06, CFI > 0.95 (Bentler & Hu 1999).

RESULTS

3.5.1. STRUCTURAL EQUATION MODELING APPROACH FOR SELF-EFFICACY AND METACOGNITIVE BELIEFS ON THE RELATIONSHIP OF SOCIAL NETWORKING USAGE WITH ACADEMIC PROCRASTINATION AND PERFORMANCE AMONG UNIVERSITY STUDENTS

In the first instance, a measurement model was tested for checking the relationship between social networking usage with academic procrastination and performance of students. After that the next and foremost step is to check the role of self-efficacy and metacognitive beliefs on the relationship of social networking usage with

academic procrastination and performance. In the first stage, structural model was fitted to check whether the path of social networking usage to academic procrastination and social networking usage to performance was significant or not, as shown in Table 3.23.

Model 1. The Direct Relationship of Social Networking Usage with Academic Procrastination and Performance

The result of path analysis was shown in figure 3.5 and present in table 3.24. The results indicated that the model was accepted as adequate and the indices of the model were (CMIN/DF) =1.702, Comparative Fit Index (CFI) =.984, Goodness Fit Index (GFI) =.999, Adjusted Goodness of Fit Index (AGFI) =.994, Root Mean Square of Approximation (RMSEA) =.025 and Chi-square =1.702, (p>0.05). Figure 3.5 provides a holistic view of the path analysis.

Figure 3.5: Path Analysis showing the direct relationship of Social Networking Usage with Academic Procrastination and Performance
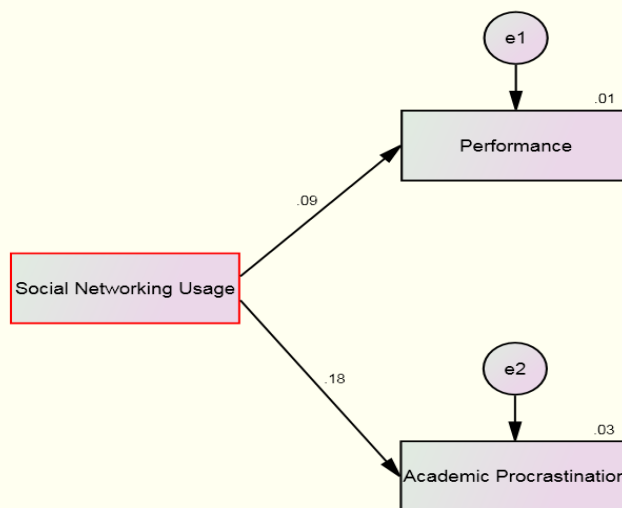
Table 3.23: Regression Weights: (Group number 1 - Default model)

	Estimate	S.E	C.R.	P
Performance <--- Social Networking Usage	.707	.241	2.937	**
Academic Procrastination <--- Social Networking Usage	.404	.065	6.181	***

***p<.001, **p<.01, *p<.05

The data in the table shows that social networking usage is positively and significantly related with academic procrastination and performance. Therefore the result indicates that there exists a significant relationship of social networking usage with academic procrastination and performance.

Table 3.24: Standardized Regression Weights: (Group number 1 – Default model)

	Estimate
Performance <--- Social Networking Usage	.086
Academic Procrastination <--- Social Networking Usage	.179

Model 2. The Role of Self Efficacy on the Relationship of Social Networking Usage with Academic Procrastination and Performance

The result of path analysis is shown in Figure 3.6 and present in table 3.25. On the basis of analysis it reveals that the model was accepted as adequate and the indices of the model were (CMIN/DF)) =.669, Comparative Fit Index (CFI) =.999, Goodness Fit Index (GFI) =.998, Adjusted Goodness of Fit Index (AGFI) =.997, Root Mean Square of Approximation (RMSEA) =.020 and Chi-square = .669, (p>0.05). Figure 3.6 provides a holistic view of the path analysis.

Figure 3.6: Path Analysis Showing the Role of Self Efficacy on the Relationship of Social Networking Usage with Academic Procrastination and Performance
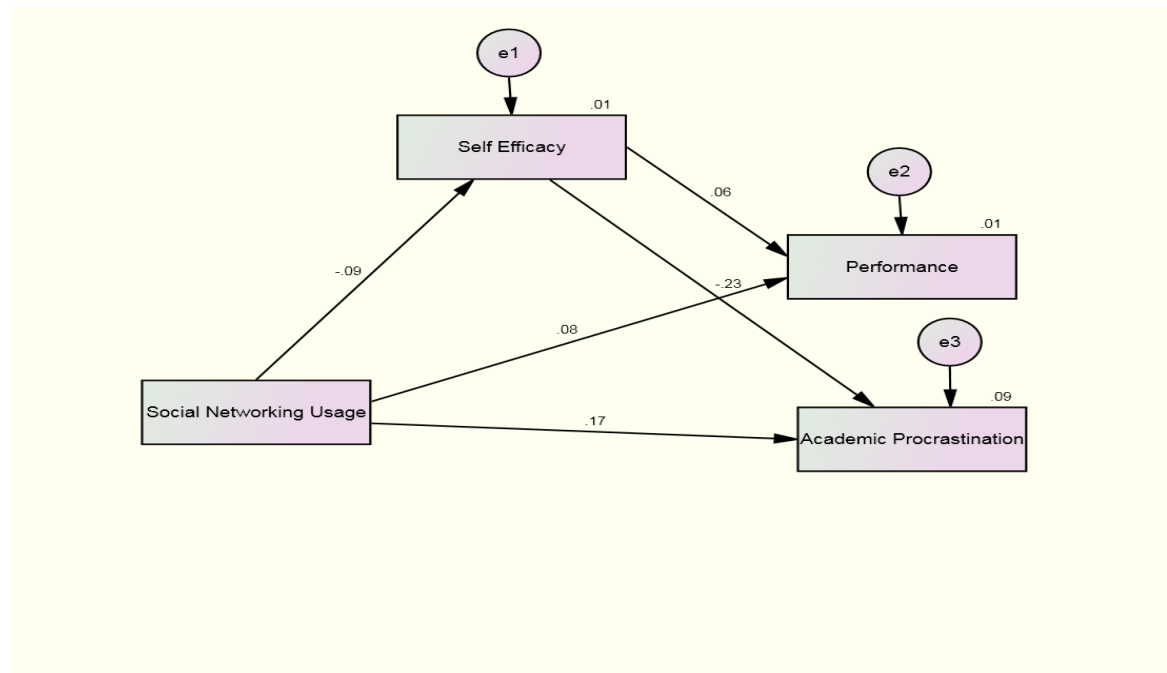

Table 3.25: Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
Self Efficacy <--- Social Networking Usage	-.092
Performance <--- Self Efficacy	.060
Academic Procrastination <--- Social Networking Usage	.170
Academic Procrastination <--- Self Efficacy	-.228
Performance <--- Social Networking Usage	.080

3.5.1.1. Role of self-efficacy on relationship of social networking usage with academic procrastination among university students

In comparison the parameter estimates of path 'c' from unmediated model shown in table 3.24 with the parameter estimates of path "C" in mediated model shown in table 3.25. It has been observed that path 'C' of mediated model generated smaller parameter

estimates (0.170) than parameter estimates of path 'C' in unmediated model (0.179). Thus it means that self-efficacy partially mediates the relationship of social networking usage with academic procrastination. Thus, the proposed hypothesis no. (18), "There exists no significant role of self-efficacy on relationship of social networking usage with academic procrastination among university students" stands rejected. Therefore self-efficacy has to play the role on the relationship of social networking usage with academic procrastination.

3.5.1.2. Role of self-efficacy on relationship of social networking usage with performance among university students

In comparison the parameter estimates of path 'c' from unmediated model shown in table 3.24 with the parameter estimates of path "C" in mediated model shown in table 3.25. It has been observed that path 'C' of mediated model generated smaller parameter estimates (0.080) than parameter estimates of path 'C' in unmediated model (0.086). Thus it means that self-efficacy partially mediates the relationship of social networking usage with performance. Thus, the proposed hypothesis no. (19), "There exists no significant role of self-efficacy on relationship of social networking usage with performance among university students" stands rejected. Therefore self-efficacy has to play the role on the relationship of social networking usage with performance.

Model 3.   The Role of Metacognitive Beliefs on the Relationship of Social Networking Usage with Academic Procrastination and Performance

The result of path analysis is shown in Figure 3.7 and in table 3.26. The results indicate that the model is accepted as adequate and the indices of the model are (CMIN/DF) =1.222, Comparative Fit Index (CFI) =.998, Goodness Fit Index (GFI) =.999, Adjusted Goodness of Fit Index (AGFI) =.995, Root Mean Square of Approximation (RMSEA) =.014 and Chi-square =1.222 (p>0.05). Figure 3.7 provides a holistic view of the path analysis.

Figure 3.7: Path Analysis Showing the Role of Metacognitive Beliefs on the Relationship of Social Networking Usage with Academic Procrastination and Performance
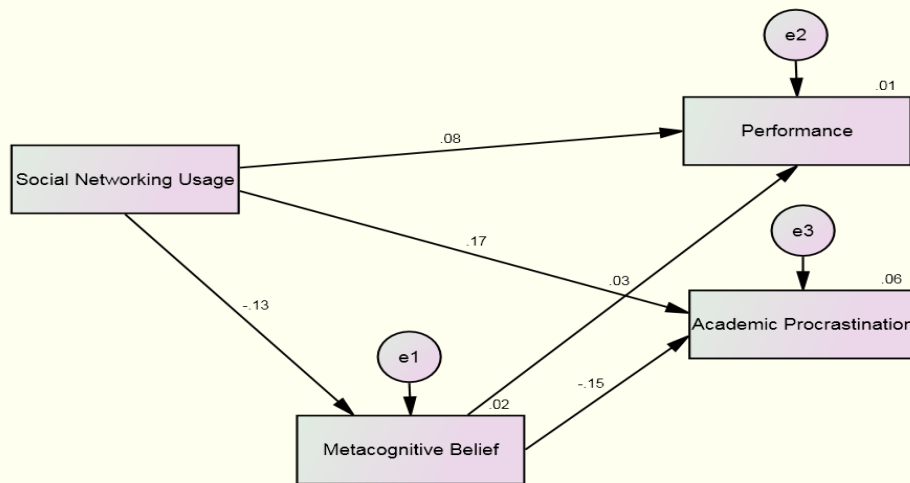

Table 3.26: Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
Metacognitive Beliefs <--- Social Networking Usage	-.129
Academic Procrastination <--- Social Networking Usage	.171
Performance <--- Metacognitive Beliefs	.033
Academic Procrastination <--- Metacognitive Beliefs	-.153
Performance <--- Social Networking Usage	.079

3.5.1.3. Role of metacognitive beliefs on relationship of social networking usage with academic procrastination among university students

In comparison the parameter estimates of path 'c' from unmediated model shown in table 3.24 with the parameter estimates of path "C" in mediated model shown in table 3.26. It has been observed that path 'C' of mediated model generated smaller parameter estimates (0.171) than parameter estimates of path 'C' in unmediated model (0.179). Thus it means that metacognitive beliefs partially mediates the relationship of social networking usage with academic procrastination. Thus, the proposed hypothesis no. (20), "There exists no significant role of metacognitive beliefs on relationship of social networking usage with academic procrastination among university students" stands rejected. Therefore metacognitive beliefs has to play the role on the relationship of social networking usage with academic procrastination.

3.5.1.4. Role of metacognitive beliefs on relationship of social networking usage with performance among university students

In comparison the parameter estimates of path 'c' from unmediated model shown in table 3.24 with the parameter estimates of path "C" in mediated model shown in table 3.26. It has been observed that path 'C' of mediated model generated smaller parameter estimates (0.079) than parameter estimates of path 'C' in unmediated model (0.086). Thus it means that metacognitive beliefs partially mediate the relationship of social networking usage with performance. Thus, the proposed hypothesis no. (21), "There exists no significant role of metacognitive beliefs on relationship of social networking usage with performance among university students" stands rejected. Therefore metacognitive beliefs have to play the role on the relationship of social networking usage with performance.

Model 4. The Role of Self Efficacy and Metacognitive Beliefs on the Relationship of Social Networking Usage with Academic Procrastination and Performance

The result of path analysis was shown in Figure 3.8 and present in 3.27. The results indicated that the model is accepted as adequate and the indices of the model are (CMIN/DF) =2.365, Comparative Fit Index (CFI) =.984, Goodness Fit Index (GFI) =.998, Adjusted Goodness of Fit Index (AGFI) =.988, Root Mean Square of Approximation (RMSEA) =.034 and Chi-square =4.729 (p>0.05). Figure 3.8 provides a holistic view of the path analysis.

Figure 3.8: Path Analysis Showing the Role of Self-efficacy and Metacognitive beliefs on the Relationship of Social Networking Usage with Academic Procrastination and Performance
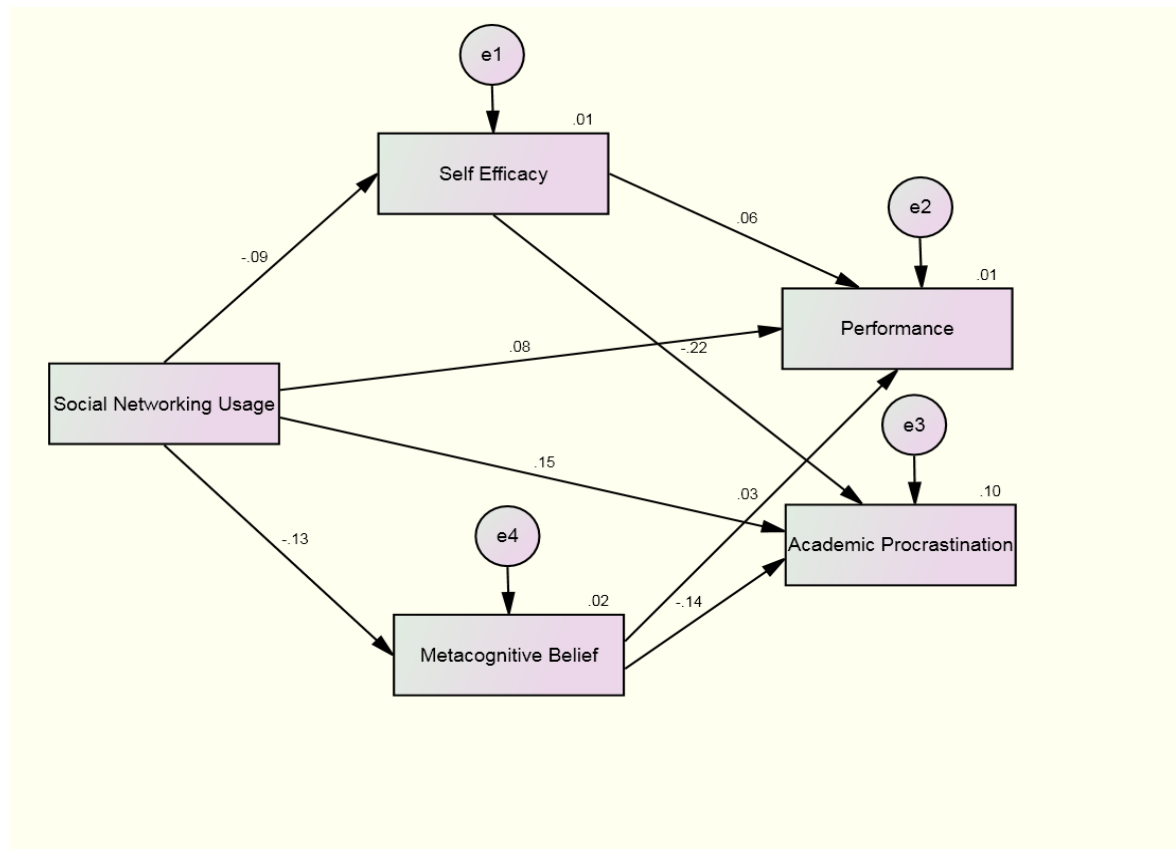
Table 3.27: Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
Self Efficacy <--- Social Networking Usage	-.092
Metacognitive Beliefs <--- Social Networking Usage	-.129
Performance <--- Self Efficacy	.058
Academic Procrastination <--- Social Networking Usage	.153
Performance <--- Metacognitive Beliefs	.030
Academic Procrastination <--- Self Efficacy	-.220
Academic Procrastination <--- Metacognitive Beliefs	-.140
Performance <--- Social Networking Usage	.084

3.5.1.5. Role of self-efficacy and metacognitive beliefs on relationship of social networking usage with academic procrastination and performance

In comparison the parameter estimates of path 'c' from unmediated model shown in table 3.24 with the parameter estimates of path "C" in mediated model shown in table 3.27. It has been observed that path 'C' of mediated model generated smaller parameter estimates (0.153) than parameter estimates of path 'C' in unmediated model (0.179) and another path 'C' of mediated model generated smaller parameter estimates (0.084) than parameter estimates of path 'C' in unmediated model (0.086). Thus it means that self-efficacy and metacognitive beliefs partially mediates the relationship of social networking usage with academic procrastination and performance. Thus, the proposed hypothesis no. (22), "There exists no significant role of self-efficacy and metacognitive beliefs on relationship of social networking usage with academic procrastination and performance among university students" stands rejected. Therefore self-efficacy and metacognitive beliefs has to play the role on the relationship of social networking usage with academic procrastination and performance.

DISCUSSION ON RESULTS

A structural equation modeling using to measure the role of self-efficacy and metacognitive beliefs on the relationship of social networking usage with academic procrastination and performance. The results indicated that the best fitting model, the statistical analysis of the SEM analysis revealed that self-efficacy and metacognitive beliefs mediates the relationship of social networking usage with academic procrastination and performance. It can be interpreted that self-efficacy and metacognitive beliefs plays the role on the relationship of social networking usage with academic procrastination and performance because the massive technological development which occurred within the short period, has contributed and made negative and positive influence in all aspects of students life. These developments cause the change in student's priorities and goals and in the way of dealing with their academic duty.

It can be understood that students self-efficacy can influence what activities they pursue, what situations, they are willing to put themselves into, and how much effort and time they are willing to spend on obstacles. Those with higher perceived self-efficacy are more likely to put forth increased effort when faced with difficulties whereas those with lower perceived self-efficacy are more likely to doubt their own capabilities and give up or withdraw when faced with difficulties. Further, metacognitive beliefs plays a significant role in which understanding own capabilities, such as a student evaluating his/her own knowledge of a subject in a class, understanding in evaluating themselves and their overall knowledge of a concept. Those who have metacognitive beliefs perceive the difficulty of a task with respect to length, content, and the type of assignment. It also deals with a person's ability to evaluate the difficulty of a task related to their overall performance on the task and knowledge about when and how to use particular strategies for learning or problem-solving.

Going deeper to the results it is revealed that self-efficacy mediates the relationship of social networking usage with academic procrastination and performance.

It was assumed that self-efficacy seems to be an essential variable because it impacts students learning and motivation. It has been observed that self-efficacy as the student's belief in his capability to perform and behaviors necessary to create specific performance achievements. It reveals confidence in the ability to exert control over one's own behavior, social environment and motivation. Students with higher level of self-efficacy commit to higher goals, persevere through challenges and visualize success, engage in more difficult tasks (Bandura, 1993). Higher self-efficacy also impacts the strategies individuals set to achieve goals (Bandura, & Wood 1989).

In an academic setting, higher perceptions of self-efficacy will contribute to committing and setting to greater attainment goals determined through challenging learning and application. These behaviors will result in higher academic performance and better learning. Therefore, higher self-efficacy should relate to higher academic performance, and lower self-efficacy should relate to lower academic performance. Numerous studies have found a positive relationship between academic self-efficacy and academic performance (Bandura & Martinez-Pons, 1992; Joo, Bong & Choi, 2000; Zimmerman, Chemers, Hu & Garcia, 2001). In addition self-efficacy has been recognized as a significant predictor of school engagement and academic achievement (Multon, Brown, & Lent, 1991; Robbins et al., 2004; Richardson, Abraham, & Bond, 2012; Martin, Way, Bobis, & Anderson, 2014). Further, the study of (Haycock, Mcarthy, & Skay, 1998) concluded that students who have high self-efficacy have fewer tendencies to procrastinate. Another study by Wolters (2003) establishes the relationship between procrastination and self-efficacy of university students. Similarly, the study by Kuzucu & Klassen (2008) described that there is relationship between procrastination and academic self-efficacy among students and they found that self-efficacy is robust indicator on the academic procrastination. Moreover, academic procrastination is related to lower level of self-efficacy and self-regulation (Tice & Baumeister, 1997; Wolters, 2003; Ferrari et al., 2005; Howell, Watson, Powell, & Buro, 2006; Schraw, Wadkins, & Olafson, 2007).

In addition, result indicates that metacognitive beliefs mediate the relationship of social networking usage with academic procrastination and performance. It was assumed

that metacognitive beliefs seems to be involved in the evaluation, review, and control of cognition, regulating the cognitive function and predicting academic performance. Metacognitive beliefs play a pivotal role in anxiety and disruption, which in turn increase the rate of academic success. Students use learning strategies and metacognitive regulation which encompasses a variety of actions such as reviewing, attention, planning, and identifying the errors in performance, thoughts and behaviors affecting cognitive activities. The results are in line with that metacognitive beliefs have an important impact on the student's academic performance (Abolghasemi, 2009). Metacognitive beliefs are important in learning and are a strong predictor of academic success (Kruger & Dunning, 1999; Dunning, Johnson, Ehrlinger & Kruger, 2003). They describes that students with good metacognitive beliefs demonstrate good academic performance compared to students with poor metacognitive beliefs. Moreover, Metacognitive self-regulation has been recognized as a significant predictor of academic achievement (Bakracevic Vukman & Licardo, 2010; Zimmerman & Kitsantas, 2014). Further, metacognitive beliefs can be decrease academic procrastination (Sadeghi, 2011; Golestani., & Shokri, 2013).

CHAPTER IV

CONCLUSIONS, RECOMMENDATIONS, AND DIRECTIONS FOR FUTURE RESEARCH

The present chapter deals with conclusions and summary as well as includes the recommendations and suggestions for further research studies.

4.1. CONCLUSIONS

Investigation in research must have a conclusion, as it is the most essential part of it. Conclusion helps an investigator to have a final view on the issues which have been raised in the investigation, to sum up the thoughts, to interpret the importance of ideas and to propel readers to a new view of the subject. It is an opportunity to make a good final impression and to end on a positive note. So this section reflects an attempt to depict brief summary of the findings drawn on the basis of descriptive and inferential statistics.

Objective I: To study the pattern of social networking usage among university students.

1. In case of for how long social networking used. Percentage-wise distribution of overall sample on different pattern of social networking usage showed that large portion of respondents use social networking for more than 1 year but less than 2 years followed by 3 years but less than 4 years, for less than 1 year, more than 2 years but less than 3 years, and for more than 4 years. In domain wise distribution majority of male university students showed that large portion of respondents use social networking for more than 3 years but less than 4 years followed by more than 2 years but less than 3 years, for more than 1 years but less than 2 years, for less than 1 year, and for more than 4 years. In case of female university students showed that large portion of respondents use social networking for more than 1 years but less than 2 years followed by for less than 1 year, more than 2 years but less than 3 years, for more than 3 years but less than 4 years and for more than 4

years. Moreover, in case of stream wise arts university students showed that large portion of respondents use social networking for more than 3 years but less than 4 years followed by more than 2 years but less than 3 years, for more than 1 year but less than 2 years, for more than 4 years and for less than 1 year and same is the case for science and commerce students.

2. In case how often social networking sites are used by the users. In total, it is found that the large portion of respondents use social networking several times a day followed by once a day, once a week, few times a week, few times in a month, once a month and rarely. In domain wise distribution majority of male university students showed that large portion of respondents does social networking for several times a day followed by once a day, once a week, few times a week, few times a month, once a month and rarely. For female university students it is observed that large portion of respondents does social networking for once a day followed by several times a day, few times a week, few times a month, once a month and rarely. Further, in case of stream wise arts university students showed that large portion of respondents use social networking for several times a day followed by once a day, once a week, few times a week, once a month, few times a month and rarely and same is the case for science and commerce students.

3. In case of average time spent on social networking sites in a day. Percentage-wise distribution of overall sample on different pattern of social networking usage showed that the large portion of respondents spending time on social networking for more than 1 hours but less than 2 hours followed by for more than 4 hours, for more than 3 hours but less than 4 hours, and for more than 2 hours but less than 3 hours. In domain wise distribution male university students showed that large portion of respondents spending time on social networking for more than 4 hours followed by for more than 3 hours but less than 4 hours, for more than 2 hours but less than 3 hours, for more than 1 hours but less than 2 hours, and for less than 1 hour. For female university students it is observed that large portion of respondents spending time on social networking for more than 1 hours but less

than 2 hours followed by for more than 2 hours but less than 3 hours, for more than 3 hours but less than 4 hours, for less than 1 hour and for more than 4 hours. Further, in case of stream wise arts university students showed that large portion of respondents spending time on social networking for more than 4 hours followed by for more than 3 hours but less than 4 hours, for more than 2 hours but less than 3 hours, for more than 1 hours but less than 2 hours, for less than 1 hour and same is the case for science and commerce students.

4. In case of preferred time for social networking in a day. In total, it is found that the large portion of respondents use social networking in the late night followed by using in the evening, in the afternoon, during noon and in the morning. In domain wise distribution it was observed that majority of male university students use social networking in the evening followed by in the late night, then in the afternoon, in the morning and during noon. In case of female university students showed that large portion of respondents use social networking in the late night followed by in the afternoon, in the evening, in the morning and during noon. Further, in case of stream wise arts university students showed that large portion of respondents use social networking in the evening followed by in the afternoon, in the late night, in the morning and during noon. Large portion of science students use social networking in the evening followed by in the late night, in the afternoon, in the morning and during noon. For commerce students it was found that large portion of respondents use social networking in the evening followed by in the late night, afternoon, during noon and in the morning.

5. In case of frequency of the different social networking sites usage. In total, it was found that WhatsApp is most frequently used social networking site by university students. After WhatsApp the next most commonly used site by university students is Facebook. After Facebook in the sequence are YouTube and Instagram and least among all are Twitter, Google+ and LinkedIn. In case of gender wise distribution Facebook is most frequently used social networking site by male students as well as female students. After Facebook the next most commonly used

site by male and female university students is WhatsApp. After WhatsApp in the sequence are YouTube and Instagram for male as well as female students. So, for male students least preferred social networking site is Twitter, LinkedIn and Google+ and for female student's least preferred social networking site is Google+, Twitter and LinkedIn. In case of stream wise it indicates that WhtasApp is most frequently used by arts students and by science students YouTube is most frequently used social networking site same is the case for commerce students. After WhatsApp the next most commonly used site by arts students is YouTube and by science and commerce students the next most commonly used site is WhatsApp. After, WhatsApp in the sequence are Instagram, Google+, LinkedIn, Twitter by arts students and by science students in the sequence are Whatsapp, Instagram, Facebook, Google+, Twitter, LinkedIn and same are the case for commerce students. So least used among all is found to be LinkedIn and twitter by arts and same is the case for science and commerce students.

Objective 2: To study the level of academic procrastination and self-efficacy among university students.

1. Percentage-wise distribution of overall sample on different levels of academic procrastination. It is observed that the majority of university students fall in extremely high level. The next percentage fall in moderate level followed by below average, low, extremely low, high level, and above average level of academic procrastination.

2. In gender wise distribution of academic procrastination it is found that majority of male university students fall under moderate level of academic procrastination followed by low level, extremely low level, average level, above average level, high level, and extremely high level. Further, it is observed that majority of female university students fall under moderate level of academic procrastination followed by below average level, low level, high level, above average level, extremely low level, and extremely high level.

3. In stream wise distribution of academic procrastination it is found that majority of arts university students falls under moderate level of academic procrastination followed by below average level, low level, high level, extremely low level, extremely high level and above average level. Further, it is observed that majority of science university students falls under moderate level followed by extremely low level, low level, above average level, below average level, high level and extremely high level. Moreover, it is observed that majority of commerce university students falls under moderate level followed by below average level, above average level, low level, high level, extremely high level, and extremely low level.

4. Percentage-wise distribution of overall sample on different levels of self-efficacy it is observed that the highest percentage of university students falls under average level of self-efficacy followed by poor and high level of self-efficacy.

5. In gender wise distribution of self-efficacy it is found that majority of male university students' falls under average level self-efficacy followed by poor and high level of self-efficacy and same is the case for female university students.

6. In stream wise distribution of self-efficacy it is found that majority of arts university student's falls under average level of self-efficacy followed by poor and high level of self-efficacy and same is the case for science and commerce students.

Objective 3: To study the relationship of social networking usage with academic procrastination and performance among university students.

1. After analyzing the relationship of social networking usage with academic procrastination among university students, the results revealed that there exists a statistically significant relationship between social networking usage and academic procrastination.

2. Further, the analysis revealed that, there exists a significant positive relationship between social networking usage with performance among university students.

Objective 4: To find out the significant differences among university students in their social networking usage, academic procrastination, performance, self-efficacy and metacognitive beliefs on the basis of gender and streams.

1. On the basis of gender, the results indicate that male and female university students do not differ significantly in their social networking usage. So it means that both male and female equally engage themselves in social networking usage.

2. In case of streams, there exists no significant difference in social networking usage among university students on the basis of stream. So it means that students of different streams i.e. art, science and commerce do not differ significantly in their social networking usage.

3. Further, the analysis revealed that there is no significant interaction effect of gender and stream on social networking usage of university students. So it indicates that interaction effect between gender and stream works independently and do not influence social networking usage of university students.

4. On the basis of gender, the results indicate that male and female university student differ significantly in their academic procrastination. So findings revealed that female students are more involved in academic procrastination as compared to their male counterparts.

5. In case of streams, there exists a significant difference in academic procrastination among university students on the basis of stream. So it means that students of different streams i.e. art, science and commerce differ significantly in their academic procrastination. So findings revealed that university students of commerce stream had scored more on academic procrastination. Students of commerce stream have more academic procrastination as compared to students of arts and science stream.

6. Further, the analysis revealed that there is no significant interaction effect of gender and stream on academic procrastination of university students. So it indicates that interaction effect between gender and stream works independently and do not influence academic procrastination of university students.

7. On the basis of gender, it is found that there exists a significant difference between male and female university students in their performance. So it means that male and female university student differ significantly in their performance. Findings revealed that male students have more academic performance as compared to their female counterparts.

8. In case of streams, there exists no significant difference in performance among university students on the basis of stream. So it means that students of different streams i.e. art, science and commerce do not differ significantly in their performance.

9. Further, the analysis revealed that there is no significant interaction effect of gender and stream on performance of university students. So it indicates that interaction effect between gender and stream works independently and do not influence performance of university students.

10. On the basis of gender, the results indicate that male and female university student differ significantly in their self-efficacy. So findings revealed that male students have more self-efficacy as compared to their female counterparts.

11. In case of streams, there exists significant difference in self-efficacy among university students on the basis of stream. So it means that students of different streams i.e. art, science and commerce differ significantly in their self-efficacy. So findings revealed that university students of arts stream had scored more on self-efficacy. Students of arts stream have more self-efficacy as compared to students of commerce and science stream.

12. Further, the analysis revealed that there is no significant interaction effect of gender and stream on self-efficacy of university students. So it indicates that interaction effect between gender and stream works independently and do not influence self-efficacy of university students.

13. On the basis of gender, the results indicate that male and female university students do not differ significantly in their metacognitive beliefs. So it means that both male and female have same metacognitive beliefs.

14. In case of streams, there exists no significant difference in metacognitive beliefs among university students on the basis of stream. So it means that students of different streams i.e. art, science and commerce do not differ significantly in their metacognitive beliefs.

15. Further, the analysis revealed that there is no significant interaction effect of gender and stream on metacognitive beliefs of university students. So it indicates that interaction effect between gender and stream works independently and do not influence metacognitive beliefs of university students.

Objective 5: To study the role of self-efficacy and metacognitive beliefs on relationship of social networking usage with academic procrastination and performance among university students.

1. The analysis revealed that there exists a significant role of self-efficacy on relationship of social networking usage with academic procrastination among university students. So it means self-efficacy play vital role in the relationship of social networking usage with academic procrastination among university students.

2. The analysis revealed that there exists a significant role of self-efficacy on relationship of social networking usage with performance among university students. So it means self-efficacy plays the role in the relationship of social networking usage with performance among university students.

3. The analysis revealed that there exists a significant role of metacognitive beliefs on relationship of social networking usage with academic procrastination among university students. So it means metacognitive beliefs play vital role in the relationship of social networking usage with metacognitive beliefs among university students.

4. The analysis revealed that there exists a significant role of metacognitive beliefs on relationship of social networking usage with performance among university. So it means metacognitive beliefs play the role in the relationship of social networking usage with performance among university students.

5. Further, the result indicated that there exists a significant role of self-efficacy and metacognitive beliefs on relationship of social networking usage with academic procrastination and performance among university students. So findings revealed that self-efficacy and metacognitive beliefs play vital role in the relationship of social networking usage with academic procrastination and performance.

4.2. RECOMMENDATIONS OF THE STUDY

In the light of conclusion drawn and the importance of the study, the following recommendations are put forth for different participants i.e. university students, parents and teachers, government officials, policy makers, educational administrators, other lay persons as means to reduce the academic procrastination through social networking usage and to strengthens the academic performance of university students.

1. Correlation analysis of social networking usage is positively correlated with academic procrastination of university students. Universities should incorporate media literacy into their curriculum in order to educate students about the benefits and risks of social networking sites. These programs will help students in recognizing and receiving information on social networking, blockage of unwanted messages and never trust on non-accredited websites.

2. Social networking usage is positively and significantly correlated with performance of university students. So there is dire need that universities should organize programmes for students as well as teachers to understand the positive and negative influence of social networking usage and introduce lot of e-learning platforms like MOOCs.

3. The findings that academic procrastination of university students is extremely high level of academic procrastination. It implies that students should follow proper time management or achieve a perfect planning and exercise the conscious control over the spent time on specific activities, and increase the effectiveness, efficiency and productivity programs on management of time with special emphasis on planning and execution of the task need to be launched.

4. University students show an average level of self-efficacy. It is essential to enhance the student's self-efficacy by developing self-confidence, belief in oneself, or a sense of personal power by giving higher order thinking task to students.

5. Both male and female equally engage themselves in social networking usage as well in streams. Results of the present study recommend that there is need to strengthen the balance between using social networking sites. It is a responsibility of parents as well teachers to aware the students regarding the positive and negative influence of social networking sites. Students must be advised to use social networking platforms constructively to enhance their learning.

6. The results from the present research that females are more involved in academic procrastination as compared to their male counterparts. University teachers should start a course and should adopt innovative strategies by conducting an open dialogue with female students to evaluate their learning skills and study habits. University teachers should use short-term motivational incentives, work in small groups rather than individually and constantly communicate with female students about their career goals, anxieties, learning motivations and learning experiences as a way to help them and develop self-regulation and reduce academic procrastination.

7. The results from the present research that females have low academic performance as compared to their male counterparts. Parents should provide sufficient educational supports to their female children's in Jammu and Kashmir. Parents should pursue their children's academic performance step by step and should be aware of their children's problems in order to get a smooth way in execution better performance in academics.

8. The findings reveal that females have less self-efficacy as compared to male their counterparts. Therefore female students' self-efficacy should be increased through certain interventions like counselling which can boost the students' confidence level and sense of control to reduce the incidence of academic procrastination.

9. The university counsellor should provide counselling services with the focus on pattern of social networking usage and its influence on procrastination and general well-being of students. Students should be encouraged to use these services frequently as per their needs, so that they can have a positive attitude and better adjustment which is essential to live a happy and healthy life.

10. Teachers should give metacognitive training to their students; it will increase student's self-planning, self-regulation, self-monitoring, and self-evaluation.

11. Administrators of universities should redefine the curriculum by focusing on technology-based pedagogies. The administrators of universities should conduct faculty development programs, seminar, conferences, and workshops focusing on social media and they should inspire teachers to take part in these programs.

4.3. SUGGESTIONS FOR FUTURE RESEARCH

After the research every investigator gets motivated towards the areas which are still there to be further researched and exploring new ways in the respected areas, which can be taken forward by other researchers. The research has come out with the following suggestions which can be upheld by the researchers to explore more prospective research:

1. This study was confined to two levels of sample i.e. Gender and Stream. A similar study can be expanded to other categories like rural/urban and different levels in Jammu and Kashmir.

2. Like in the present study, social networking, academic procrastination, performance, self-efficacy and metacognitive belief has been explored, in a same way these variables can be studied for other samples qualitatively or quantitatively.

3. It will also be advisable to conduct some comparative, follow-up, longitudinal and/or experimental studies as it is likely to go a long way to evaluate the academic procrastination of social networking users on different age groups at different levels e.g. school level, college level and university level.

4. Experimental researches need to be integrated with educational, psychological, and clinical bases to explore the strategies on academic performance as well as to reduce academic procrastination.

5. The variable social networking usage could be studied in relation to other variables such as intelligence, organizational climate, home environment, student engagement, social support and mental health.

6. The study suggests that special attention needs to be paid at university and home to train the children for essential metacognitive ability. These are the skills that will help students how to learn, plan, regulate, monitor, evaluate and finally enhance their life skills.

7. Finally, this study suggests that future researcher may study the indirect effect of other variables like self-regulation, personality hardiness, optimism, motivational beliefs and cognitive engagement in the relationship of social networking usage with academic procrastination and academic performance of university students.

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APPENDICES

Please fill up the following information:

Name_____ Class_____

Age_____ Gender _____

Urban/Rural_____ Stream: Arts/Science/Commerce_____

Father's Qualification_____ Father's Occupation_____

Mother's Qualification _____Mother's Occupation_____ _____

Family Monthly Income_____

Name of College/University_____

Previous Exam Marks_____ Previous Exam Percentage_____

INSTRUCTIONS

Dear student,

There is a scale that attempt to measure the self-efficacy and metacognitive beliefs of an individual. The items of the scale are given in statement form. You are requested to read each statement carefully and give your response by putting a tick (✓) mark only that option which you find that is most appropriate and true in your case. There is no right /wrong answer.

Example:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I always follow my plan of action	☐	☐	☐	☐	☐

In the above statement, if you feel the correct response could be Agree, then put tick (✓) in that column. Please do not leave any statement unattempt. There is no time limit. Your responses will be used for research purpose only and the responses will be always kept confidential.

SELF EFFICACY SCALE

S. No	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
01	I feel confident about capabilities that with little efforts I can resolve difficult problems.					
02	I am confident that I can achieve all targets that I set for myself.					
03	I am so confident of my capabilities that I can finish tasks on time.					
04	Despite hard work, I feel I will not succeed.					
05	I feel I can keep self control even at difficult times.					
06	In any circumstance, I can achieve what I desire.					
07	I have enough self-confidence to finish any work.					
08	With my efforts, I can achieve anything.					
09	My own potential and capabilities are responsible for all my achievements so far.					
10	It is usually not possible for me to achieve any targets.					
11	I am able to balance myself even in most difficult times.					
12	I am unable to face difficulties without any help and support.					
13	Even in most difficult situations, I can strategize to resolve and deal with it.					
14	I try my level best to achieve my targets.					
15	I can keep my cool even when others try to take up fight with me.					

16	If I get stuck in some work, with little efforts I can resolve it.					
17	If I try sincerely, I am confident I shall be able to succeed.					
18	Despite concentrating on my aim, I will fail.					
19	If I am determined to succeed, I shall be able to achieve success.					
20	If work as per plan, I shall be able to reap results quickly.					

METACOGNITIVE BELIEFS QUESTIONNAIRE

S. No	Statements	Do not agree	Agree slightly	Agree moderately	Agree very much
01	I do not trust my memory				
02	I have a poor memory				
03	I have little confidence in my memory for actions				
04	I have little confidence in my memory for places				
05	I have little confidence in my memory for words and names				
06	Worrying helps me to get things sorted out in my mind				
07	Worrying helps me cope				
08	Worrying helps me to solve problems				
09	I need to worry in order to remain organized				
10	Worrying helps me to avoid problems in the future				
11	I am constantly aware of my thinking				
12	I pay close attention to the way my mind works				
13	I think a lot about my thoughts				
14	I constantly examine my thoughts				
15	I monitor my thoughts				
16	My worrying thoughts persist, no matter how I try to stop them				
17	When I start worrying I cannot stop				
18	My worrying could make me go mad				
19	If I could not control my thoughts, I would not be able to function				
20	I should be in control of my thoughts all of the time				
21	It is bad to think certain thoughts				
22	If I did not control a worrying thought and then it happened, it would be my fault				