

An Empirical Assessment and Psychological Perspective of Internet Addiction on Human Behavior

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It has been seen that the use of internet is extending worldwide and it is expected to continue with its use becoming an integral part of one's life. The internet provides many incredible benefits; however, the excess use of internet may also lead to many negative outcomes. The present study focuses on the relationship between internet addiction and procrastination, and reviews the studies relevant to this topic from both social psychology and computer-mediated communication literature. To assess the relationship between Internet Addiction and Procrastination we used IAT instrument developed by Young (1996). On the basis of earlier studies and previous experience with Widyanto and McMurrian's (2004) on Internet addiction test., the researchers have adapted the same six factors of internet addiction which was revealed by Widyanto and McMurrian's after reduced the 20 items into six factors using factor analysis and these six factors were salience, excessive use, neglecting work, anticipation, lack of control, and neglecting social life. Thus the aim of our study is to find the interactive internet functions more systematically by using Internet Addiction Test (IAT) and its relationship with procrastination. Survey method was used with the help of questionnaire from 100 internet users, out of which 13 questionnaires had to be dropped due to inconsistencies or lack of relevant answers. Thus the sample size of present study was 87. The respondents were selected internet users in the Ajmer city of Rajasthan who used internet at least once in a week. These responses were analyzed using frequency counts, percentages, means, standard deviations, Anova, Cronbach's alpha, cross-tabulation, t-test, correlation, and multiple regression analysis. The study revealed that there is a strong positive correlation between procrastination and internet addiction. Procrastination is also strongly correlated with salience, excessive use, neglecting work, anticipation, lack of control, and neglecting social life. From the theoretical point of view, this study has demonstrated the workability of IAT. The IAT is therefore, recommended as an instrument for future research.

Keywords: Internet Addiction, Procrastination, Human behavior

Introduction

Twenty-seven years ago, Internet was like a small dog at the bottom of the application pile, fighting for recognition, today, vast numbers of people are using Web Services through the Internet. "Web science is about making powerful new tools for humanity and doing it with our eyes open" (Lee, 2008). Now the internet, being itself a communication technology tool, differs from traditional communication technologies such as telephone, radio and paper. The difference is the level of interaction and the speed at which an individual can broadcast their messages. No other medium gives every participant the ability to communicate instantly with thousands and thousands of people. Internet is full of information transactions; information is relayed every second, from news to reports, opinions, feedback and much more.

As internet achieved many technical and operational goals on the horizon, simultaneously it faces many challenges also. With its great potentiality for both positive and negative consequences, internet expands into more and more daily activities and has begun as mirror of human society. When we are using Internet For example, Students, Academicians,

Businessman, Government officers, Private employee, Housewife and those human who are connected in some way to the internet. A lot has been written in past about the negative impact of internet addiction on human behavior. Millions of human around the world use Internet to search, inform, find, communicate, work and play. Internet should not be only viewed as negative such as addiction and pathological nor should it be vilified. One must be aware of negative consequences of overuse of the Internet by understanding the behavior of themselves and from others. For example, communication, relationships, social involvement, networking, meetings, gatherings etc 70% of Internet human build relationships with other human. According to the study of Cohen and Wills, 2008, Persons whose everyday life involves more communication have more social resources—larger social networks, close relationships, community ties, enacted and alleged social support, and vociferous individual orientation, and they are likely to have better psychological functioning, lower levels of stress, and greater happiness. Contrast to this definition Kraut in 2008 has stated that those person who communicate little and have fewer social resources— social seclusion, living alone, the

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absence of a close relationship, the breakdown or loss of a close relationship, low levels of real and perceived social support, and coyness— are more likely to have poor psychological functioning, to feel lonely, and to experience higher levels of depression. Thus the constant pace of increasing internet users has inspired the present study that is to determine the existence of internet addiction and correlates it with one of the aspect of human behavior, called procrastination.

To investigate the stated possibilities, screening of numerous literature showed that while there has been considerable research into the internet, very few research projects have focused on excess use of internet and the outcome of human behaviors. The present paper is an attempt to build a new approach or find clear solution to the problems faced by the excess use of internet and its impact on procrastination. Procrastination is a term that describes putting off or completely avoiding an action or task that is under one's control (Tuckman and Sexton, 1989).

Whereas internet is considered as a new tool which is embryonic into an essential part of everyday life all over the

world and its rapid use increases especially among adolescents. In spite of the broadly perceived virtues of this tool, many psychologists and educationalist have been aware of the negative impacts of its use, mainly the excess or misuse and its related physical and psychological problems. One of the most common problems among these is internet addiction; the problem of internet addiction is a raising phenomenon which moving people with varying frequency around the world and has produced negative impacts on the academics, relationships, finances, and occupational aspects of several lives. It is normally exemplify by psychometer anxiety, apprehension, yearning, depression, aggression, substance experience, preoccupation, loss of control, withdrawal, mutilation of function, reduced decision-making ability and constant online surfing despite negative effects on social and psychological welfare.

Internet Addiction is an extreme computer use which interferes with daily life. It can cause the users to go days without showering or eating, cause the breakdown of relationships, and the deterioration of school and work obligation fulfillment.

There are two models with which to understand Internet Addiction.



Figure- 1: Self correcting or Phase model of Internet Addiction

In self correcting model, the user becomes excited by the newness of a game, the internet, or other object of interest. This excitement turns to over-use and imbalance; then, the

user-becomes disenchanted and uninterested in the object. This part is often characterized by a lack of interest in the object, and followed by healthy, balanced use.



Figure- 2: Common model of Internet Addiction

Common model describes an escalation that must be intervened upon in order to stop. Here, the user does not self-correct, but instead becomes more and more interested in the game, becoming more and more obsessed and unbalanced until intervention and treatment.

Review Of Literature

The concept of internet addiction has been revealed after the numerous studies of several researchers on several concepts like the term technological addiction and computer addiction have previously been studied in England by Griffith in 1996 and Shotton in 1991 respectively. Whereas the concept of Internet addiction was first introduced in a pioneer study of Young in

1996, and it sparked a contentious debate by both clinicians and academicians. Part of this controversy revolved around the disputation that there is only a physical substance which ingested into the body and could be termed as "addictive." While the study of Rachlin in 1990 and Walker in 1989 believed that the term *addiction* should be applied only to cases involving the ingestion of a drug. Griffiths in 1990 stated that addiction has stimulated beyond this to include a number of behaviors which do not involve an intoxicant such as compulsive gambling, video game playing (Keepers, 1990), overeating (Lesuire & Bloome, 1993), exercise (Morgan, 1979), love relationships (Peele & Brodsky, 1975), and television-viewing (Winn, 1983). Thus, linking the term

"addiction" exclusively to drugs creates an artificial dissimilarity which strips the use of the term for a similar condition when drugs are not involved said by Alexander & Scheweighofer in 1988.

After completed the survey Young in 1996 has explored the fact that serious relationship problems were reported by fifty-three percent of Internet addicts. Not only this marriages, dating relationships, parent-child relationships, and close friendships have also been noted to be seriously disrupted by "net binges." Humans will steadily use up less time with people in their lives in exchange for solitary time in front of a computer.

Previously internet has been touted as an important educational tool driving schools to amalgamate Internet services among their classroom environments. However, the survey by Barber in 1997 revealed that eighty-six percent of responding teachers, librarians, and computer coordinators believe that use of internet through children does not improve performance. Many respondents argued that on internet the information is unrelated to school curriculum as well as in a disorganized manner also while textbooks which are used to help students achieve better results on standardized tests. To further question its educational value, Young in 1996 found that fifty-eight percent of students reported as a turn down in study habits, a noteworthy fall in grades, missed classes, or being placed on probation due to excessive use of Internet.

In spite of all the negative consequences the merits of internet build it an ideal research tool; student's wave's irrelevant web sites, engage in chat room gossip, converse with Internet pen pals, and play interactive games at the cost of productive activity. Alfred University's Provost W. Richard Ott investigated why normally successful students with 1200 to 1300 SATs had recently been dismissed. To his surprise, the investigation by Brady in 1996 found that forty-three percent of these students failed school due to wide-ranging patterns of late night logons to the university computer system.

In 1991 Peele has given the new definition of the term 'addiction' and stated that a person is susceptible to addiction when that person feel limp of happiness in one's life, an absence of understanding or strong associations to others people, a lack of self-confidence or persuasive interests, or a loss of hope. Continued to this definition Young 1997a, Young 1997b found that those who are dissatisfied or distress by a particular area or multiple areas of their lives have an increased probability of developing internet addiction because they don't understand another way of coping.

Study of Young in 1997c has found that such as homemakers, singles, the disabled, or the retired or who lived lonely lifestyles have greatly contributed to addiction behavior as they get more online social support. He also found that these people's depleted long periods of time home alone turning to interactive on-line applications such as use of chat rooms as a substitute for the lack of real life social support. Furthermore, persons who recently experienced situations such as a death of

their dear one, a divorce, or a job loss may respond to the Internet as a mental disruption from their real life problems.

The issue of gender in regard to the question of Internet use and its effects is an important one. Do men and women use the Internet differently and engage different Internet applications? Young (1998) observed that men tend to seek out dominant activities or content online. Those interactive online games that rely particularly on power, dominance, control, and/or violence attract more men than women. Women, on the other hand, seek out close friendships and prefer anonymous communication in which they can hide their appearance(s). Virtual communities give women a sense of belonging and the ability to share their feelings and emotions in private and convenient ways. Whereas men tend to explore sexual fantasies online, women tend to look for romance in cyberspace. Young states that although it is not unusual for women to engage in random cybersex or cyber sex chat, they often prefer to form some type of relationship prior to the sexual chat. In Chen's study (2000), hierarchical regression analysis indicated that time-management problems and compulsion symptoms are common predictors for both genders' weekly time spent on the Internet. Shyness and withdrawal symptoms are predictive only for female college students, whereas experiences and tolerance symptoms are predictive only for males. Based on the aforementioned studies, tentative conclusions can be drawn that men use the Internet differently from women, and that men are more likely subject to Internet addiction. Further Widyanto, McMurran (2004) in their study on psychometric properties on internet addiction revealed six factors - salience, excessive use, neglecting work, anticipation, lack of control, and neglecting social life. The researchers took these six factors as a base of this study while Measuring Internet Addiction.

With the increasing attention being placed on Internet addiction, it can no longer be denied that the problem exists. A large portion of the literature has been devoted to the discussion of "Internet addiction" or "pathological Internet use," a compulsion to use the Internet which interferes with everyday functioning and with good reason: a recent meta synthesis of Internet addiction studies estimated that nearly 9 million Americans may be labeled Internet addicts (Byun et al., 2009). However, it remains problematic that no common definition for Internet addiction has been decided upon; a good working definition comes from Beard (2005). In the light of above literature the researcher found gap that exist as follow.

Research Gap

There have been a number of valuable studies made an attempt to study the impact of rapid technological advancement on psychological dimensions. As more research on these topics have been done but little attention has been paid towards the internet addiction and its impact on human behavior. Hence, there is need to conduct systematic research to fill this gap. Thus, the study will seek the impact of internet addiction on procrastination.

Objectives Of The Study

There is great concern about the excess use of internet and whether it may amount to an addiction. In 1996 Young has designed an instrument called internet addiction test (IAT) which provides a basis for developments. This instrument has high face validity, but it has not been subjected to psychological testing which can test the impact of internet addiction on human behavior rather than this it was based on pathological testing. Thus in the present study the researchers intends

- To examine the relationship between internet addiction and procrastination,
- To analyze the level of internet addiction which leads procrastination among human,
- Do their attitudes, behavior change, once they have assimilated with the internet,
- To examining how internet addiction leads to procrastination?
- To examining negative consequences of excessive use of internet.

Hypotheses

- H01: The level internet addiction does not lead to procrastination.
- H02: There is no relationship between *salience* feature of internet addiction and procrastination.
- H03: There is no relationship between *excessive use* feature of internet addiction and procrastination.
- H04: There is no relationship between *neglecting work* feature of internet addiction and procrastination.
- H05: There is no relationship between *anticipation* feature of internet addiction and procrastination.
- H06: There is no relationship between *lack of control* feature of internet addiction and procrastination.
- H07: There is no relationship between *neglecting social life* feature of internet addiction and procrastination.

Research Methodology

Though the relationships of internet addiction with social and physical variables have received broad scholarly attention, documenting its strong association with other emotional variables such as procrastination, depression, anxiety, and stress have received less attention. Therefore, the aim of research is to examine the relationship between the level of internet addiction and procrastination. The present study is empirical in nature based on survey method. Primary data was collected with the help of well structured questionnaire. Around 100 questionnaires were distributed to respondents

out of which 13 questionnaires had to be dropped due to inconsistencies or lack of relevant answers. Thus the response rate was 87. The respondents were selected internet users in the Ajmer city of Rajasthan who used the internet at least once in a week. These responses were analyzed using frequency counts, percentages, means, standard deviations, variance analysis, cross-tabulation, t-test, correlation, and multiple regression analysis. Following is the profile of sample respondents.

Table 1
Respondents' Profile

Variables	Frequency	Percentage	Cumulative Percentage
Gender			
Male	39	45	45
Female	48	55	100
Total	87	100	
Age Group in Years			
13-19	31	35	35
20-29	27	31	66
30-39	12	14	80
40-49	17	20	100
Total	87	100	
Education			
10 th	14	16	16
12 th	29	34	50
Graduation	22	25	75
Post Graduation	22	25	100
Total	87	100	
Profession			
Student	32	37	37
Academician	11	13	50
Private Employee	26	30	80
Govt. Employee	18	20	100
Total	87	100	
Internet Using Period			
Less than 4	5	06	9
4-7	12	14	25
8-11	09	10	45
12-15	17	19	65
16-19	25	29	79
More than 19	19	22	100
Total	87	100	
Place of internet accession			
Everywhere	6	6	6
Everywhere from mobile	24	28	34
Home	24	28	62
Neighbors/Relative place	2	2	64
School/ College computer	31	36	100
Total	87	100	

Questionnaires & Measures

As the present research is questionnaire based study, the collection of requisite data was done with the help of a printed questionnaire consisting of three separate sections.

Part I Demographic Information: It consists of respondent's

age, gender, education, and occupation.

Internet use – In this section respondents were asked for the estimated time per week spent online and for what purpose. They were asked is their internet use had changed over the past year, which function of the internet they use mostly during their time online, and how much time they spend on the

chosen function.

Part II Internet addiction Test (IAT): This instrument consists of 20- items on which respondents were asked to rate items on a five point Likert scale, covering the scale to which their internet use affects their daily routine, social life, productivity, sleeping pattern emotions and feelings. The minimum score is 20 and the maximum is 100; the higher the score the, the greater the problem internet uses causes. Young suggest that a score of 20-39 point is an average online user who has complete control over his/ her usage; a score of 40-69 signifies

frequent problems due to internet usage and a score of 70-100 means that the internet is causing significant problems.

Part III Procrastination: This part of questionnaire determines the level of procrastination. It consists of 13 questions. Respondents had to estimate degree of agreement / disagreement on a scale between '0' (not at all) to '4' (all the time).

Data analysis work has been carried out by using the following variables.

Table- 2 Variables

Independent variable	Dependent variable
Internet Addiction	Procrastination
Excessive Use	
Neglecting Work	
Anticipation	
Lack of Control	
Neglect of Social Life	
Salience	

Other Measures

Since this study was a part of a broader research project other psychological characteristics (Depression and Emotion &

Moods) were investigated. However in this article only a procrastination variable related to internet addiction will be presented and results in connection with other dimensions will not be considered.

DATA ANALYSIS

Table - 3
Descriptive Statistics Internet Addiction

Sr. No.	Statement	Mean	Standard Deviation
1	How frequently do you find that you stay online longer than you anticipated?	1.7586	1.12027
2	How frequently do you neglect house hold tasks to spend extra time online?	1.9080	1.14762
3	How frequently do you prefer the pleasure of the internet to familiarity with your partner?	2.1149	1.28882
4	How frequently do you form new relationships with fellow online users?	2.0460	1.26590
5	How frequently do others in your life protest to you about the amount of time you spend online?	1.9770	1.24804
6	How frequently do your grades or school work suffers because of the amount of time you spend online?	1.8851	1.20489
7	How frequently do you check your e-mail prior to something else you need to do?	2.6667	1.43597
8	How frequently does your job performance or productivity suffer because of the internet?	1.9655	1.39307
9	How frequently do you become distrustful or puzzling when anyone asks you what you do online?	2.3218	1.24353
10	How frequently do you block out disturbing thoughts about your life with peaceful thoughts of internet?	2.4023	1.24321
11	How frequently do you find yourself anticipating when you will go online again?	2.3103	1.26040
12	How frequently do you fear that life without the internet would be tedious, empty, and joyless?	2.7701	1.53032
13	How frequently do you snap yell or act annoyed if someone bothers you while you are online?	2.4023	1.36790
14	How frequently do you loose sleep due to late night logins?	2.1034	1.34713
15	How frequently do you feel preoccupied with the internet when offline or visualize about being online?	1.9310	1.15932
16	How frequently do you yourself saying "Just a few more minutes" when online?	2.5747	1.43569
17	How frequently do you try to cut down the amount of time you spend online and fail?	2.3333	1.26368
18	How frequently do you try to veil how long you have been online?	2.0000	1.21999
19	How frequently do you choose to spend more time online over going out with others?	2.0575	1.24224
20	How frequently do you feel depressed, moody or nervous when you are offline, which goes away once you are back online?	2.2989	1.69208
	Total Internet Addiction	43.4598	15.53526

Table – 4
Descriptive statistics Procrastination

Sr. No.	Statement	Mean	Standard Deviation
1	Why can't I do what I should be doing?	1.5862	1.23469
2	I need to start earlier	2.1724	1.24084
3	I should be more responsible	2.3218	1.28039
4	No matter how much I try, I still put things off.	1.5632	1.20755
5	Why can't I just get started	1.5517	1.21769
6	I Know I'm behind but I can catch up.	2.5287	1.29255
7	I 'm letting myself down.	1.2299	1.16839
8	This is not how I want to be.	1.4253	1.16771
9	It would be great if everything in my life were done on time.	2.4598	1.32774
10	I'm such a procrastinator; I'll never reach my goals.	.9885	1.30735
11	I need deadlines to get me going.	1.2644	1.25253
12	Why can't I finish things that I start	1.6437	1.37229
13	Why didn't I start earlier	1.9080	1.38625
	Total Procrastination	22.6437	7.09074

Table – 5
Descriptive Statistics of various dimensions of Internet addiction and Procrastination

Dimensions	Mean	Std. Deviation	N
Procrastination	22.6437	7.09074	87
Internet Addiction	43.4598	15.53526	87
Excessive Use	2.0138	.72033	87
Neglecting Work	2.0575	.99768	87
Anticipation	2.4885	1.05923	87
Lack of Control	2.2950	.87814	87
Neglect of Social Life	2.0805	1.06442	87
Salience	2.3126	.67009	87

Reliability of Internet Addiction & Procrastination

According to Bryman and Cramer (2006), the reliability of a measure refers to its consistency and often entails the external and internal aspects of reliability. With multiple item scale the internal reliability is important, as internal liability helps certain whether each scale is measuring a single idea and whether all the items within the scale are internally consistent. Thus to ensure our measure internally reliable, the Cronbach's alpha reliability test was performed on 87 cases by using SPSS software.

Reliability analysis was performed to check the internal

consistency of the scale. In order to achieve this, the Cronbach's alpha coefficient obtains from the statistical program SPSS 19.0, was observed and compare. The recommended Cronbach's alpha coefficient of a scale should be at least 0.70 and above. The reliability of the scale has been divided into eight parts further explained below.

a) Procrastination: The reliability of all procrastination items being measured questions 01-13 was obtained at a Cronbach's alpha value 0.713. This is above the recommended 0.70 and thus, the scale is considered to be reliable with the sample. Table 6 shows the result summary of the procrastination scale items internal reliability.

Table- 6 Reliability of Procrastination items

Cronbach's Alpha	No of items
0.713	13

b) **Internet addiction and its dimensions:** The reliability of all the items being measured under internet addiction test (questions 01 to 20) was obtained at Cronbach's alpha value of

0.814. Since this is above the ideal 0.70, the scale is considered to be reliable with the sample. Table 7 shows the result summary of internet addiction scale and its dimensions.

Table - 7 Reliability Internet addiction items with dimensions

Particulars	Cronbach's Alpha	No of items
Overall Internet addiction Test	0.814	20
Salience	0.817	5
Excessive use	0.734	5
Neglecting work	0.773	3
Anticipation	0.772	2
Lack of control	0.717	3
Neglect of social life	0.799	2

Results And Hypothesis Testing

Part – I

Correlation Analysis

In order to understand the relationship between various dimensions of the Internet Addiction and Procrastination,

correlation among these variables were computed. Analysis depicted positive relationship between the various dimensions of internet addiction namely salience, excessive use, neglecting work, anticipation, lack of control and neglect of social life, and procrastination. Correlations of aforesaid variables are given below in table 8.

Table 8
Correlation analysis of various dimensions of the Internet Addiction and Procrastination

		<i>Procrastination</i>	<i>IAT</i>	<i>Excessive Use</i>	<i>Neglecting Work</i>	<i>Anticipation</i>	<i>Lack of Control</i>	<i>Neglect of Social Life</i>	<i>Salience</i>
<i>Procrastination</i>	<i>Pearson Correlation</i>	1	.915**	.95**	.94**	.79**	.89**	.72**	.069*
	<i>Sig. (2-tailed)</i>		.000	.000	.000	.000	.000	.000	.001
	<i>N</i>	87	87	87	87	87	87	87	87
<i>IAT</i>	<i>Pearson Correlation</i>	.915**	1	.085	.321**	.258*	.181	.168	.084
	<i>Sig. (2-tailed)</i>	.000		.434	.002	.016	.093	.120	.441
	<i>N</i>	87	87	87	87	87	87	87	87
<i>Excessive Use</i>	<i>Pearson Correlation</i>	.95**	.085	1	.407**	.107	.409**	.513**	.379**
	<i>Sig. (2-tailed)</i>	.001	.434		.000	.324	.000	.000	.000
	<i>N</i>	87	87	87	87	87	87	87	87
<i>Neglecting Work</i>	<i>Pearson Correlation</i>	.94**	.321**	.407**	1	.296**	.368**	.459**	.381**
	<i>Sig. (2-tailed)</i>	.000	.002	.000		.005	.000	.000	.000
	<i>N</i>	87	87	87	87	87	87	87	87
<i>Anticipation</i>	<i>Pearson Correlation</i>	.79**	.258*	.107	.296**	1	.141	.176	.318**
	<i>Sig. (2-tailed)</i>	.000	.016	.324	.005		.192	.103	.003
	<i>N</i>	87	87	87	87	87	87	87	87
<i>Lack of Control</i>	<i>Pearson Correlation</i>	.89**	.181	.409**	.368**	.141	1	.132	.418**
	<i>Sig. (2-tailed)</i>	.000	.093	.000	.000	.192		.223	.000
	<i>N</i>	87	87	87	87	87	87	87	87
<i>Neglect of Social Life</i>	<i>Pearson Correlation</i>	.72**	.168	.513**	.459**	.176	.132	1	.462**
	<i>Sig. (2-tailed)</i>	.000	.120	.000	.000	.103	.223		.000
	<i>N</i>	87	87	87	87	87	87	87	87
<i>Salience</i>	<i>Pearson Correlation</i>	.69*	.084	.379**	.381**	.318**	.418**	.462**	1
	<i>Sig. (2-tailed)</i>	.001	.441	.000	.000	.003	.000	.000	
	<i>N</i>	87	87	87	87	87	87	87	87

***. Correlation is significant at the 0.01 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

Statistical Procedure for Hypothesis testing: in order to test the hypotheses 2, 3, 4, 5, 6 and 7 presented in theoretical framework, multiple regression analysis followed by Anova was carried out. Hypothesis 1 was tested using Fishers t-test.

Part – II

Testing of Hypotheses H_{02} , H_{03} , H_{04} , H_{05} , H_{06} and H_{07} : Multiple regression equation was developed to find out relationship between six dimensions of Internet Addiction i.e.

excessive use, neglecting work, anticipation, lack of control, neglect of social life and salience, and Procrastination. The model summary of multiple regression model has been provided in tables - 9, 10, 11 and 12. This model is based on simple regression. The adjusted R square value is 0.469(or approximately 47%) it means that this model explain approximately 47% of the variance in procrastination. In addition the statistical significance of the result is also an important factor to consider when evaluating the regression

model. The Anova tables 9, 10, 11 and 12 – indicates that the model reaches statistical significance (significance=0.05).

Multiple regression equation:

$$\text{Procrastination} = 17.663 - 1.544_{x1} + 1.793_{x2} + 0.918_{x3} + 1.535_{x4} + 1.011_{x5} - 1.518_{x6}$$

Where,

Procrastination (constant),

X1 = excessive use,

X2 = neglecting work,

X3 = anticipation,

X4 = lack of control,

X5 = neglect of social life,

X6 = salience.

Table – 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.685 ^a	.469	.432	6.78369

Table – 10: Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.469	2.327	6	80	.040

a. Predictors: (Constant), Salience, Anticipation, Excessive Use, Lack of Control, Neglecting Work, Neglect of Social Life

Table – 11: ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	642.479	6	107.080	2.327	.040 ^a
	Residual	3681.475	80	46.018		
	Total	4323.954	86			

a. Predictors: (Constant), Salience, Anticipation, Excessive Use, Lack of Control, Neglecting Work, Neglect of Social Life

b. Dependent Variable: Procrastination

Table – 12: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.663	3.104		5.691	.000
	Excessive Use	-1.544	1.300	-.157	-2.188	.039
	Neglecting Work	1.793	.908	.252	3.974	.052
	Anticipation	.918	.746	.137	3.231	.022
	Lack of Control	1.535	1.018	.190	3.508	.036
	Neglect of Social Life	1.011	.917	.152	2.103	.019
	Salience	-1.518	1.391	-.143	-4.092	.008

a. Dependent Variable: Procrastination

Table 12 indicates a statistically significant positive relationship. And thus we reject the null hypotheses H₀₂, H₀₃, H₀₄, H₀₅, H₀₆ and H₀₇ which is explained below.

**Table– 13
Hypotheses Status**

Null Hypotheses No.	Hypotheses Statement	Multiple regression and Anova Result
H ₀₂	There is no relationship between <i>salience</i> feature of internet addiction and procrastination	Reject
H ₀₃	There is no relationship between <i>excessive use</i> feature of internet addiction and procrastination.	Reject
H ₀₄	There is no relationship between <i>neglecting work</i> feature of internet addiction and procrastination.	Reject
H ₀₅	There is no relationship between <i>anticipation</i> feature of internet addiction and procrastination.	Reject
H ₀₆	There is no relationship between <i>lack of control</i> feature of internet addiction and procrastination.	Reject
H ₀₇	There is no relationship between <i>neglecting social life</i> feature of internet addiction and procrastination.	Reject

Part - III

Hypothesis Testing H01: To test H01 (The level of internet addiction does not lead to procrastination) we analyzed data

using Fisher's t-test taking the scores of Internet Addiction and Procrastination at a significance level of 0.05.

T-test can be ascertain as follows

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

r = Coefficient of Correlation

n = Number of Observations

Here t is based on $(n - 2)$ degree of freedom

Table M14
Descriptive Statistics

Correlations			
		Procrastination	Internet Addiction
Pearson Correlation	Procrastination	1.000	.915
	Internet Addiction	.915	1.000
N	Procrastination	87	87
	Internet Addiction	87	87

From the above table the correlation between Internet addiction and Procrastination is = 0.915

$n = 87$

$$t = \frac{0.915}{\sqrt{1 - (0.915)^2}} \times \sqrt{87 - 2}$$

$$t = \frac{0.915}{0.4037} \times 9.21$$

$$t = 0.226 \times 7$$

$$t = 20.87$$

For $v = 85$ ($87 - 2$), $t_{0.05} = 1.645$. The calculated value of t is more than the table value. The hypothesis is rejected, hence the researchers conclude that the level of internet addiction lead to procrastination

Graphical Presentation

This high correlation is graphically represented in figure 3 below

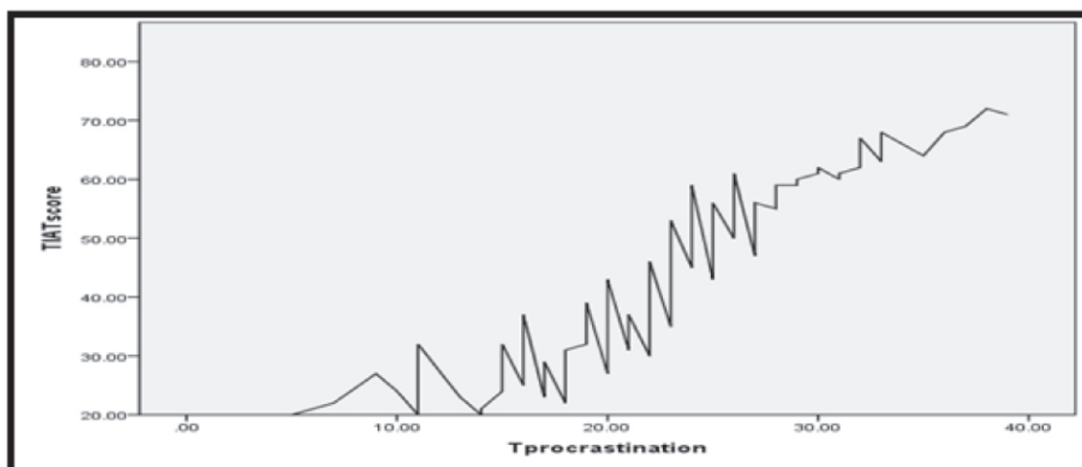


Figure – 3 Graphical representation of relationship between procrastination and Internet Addiction

Discussion

Relationship between procrastination and internet addiction

The study of internet addiction & human behavior is a multidimensional in nature that requires in-depth analysis. The present study was designed to study the impact of internet addiction on human behavior with special reference to procrastination. Quantitative approach is used for conducting research, in this the instrument of internet addiction test (IAT) and procrastination was used. The reliability of these two instruments was tested before conducted research in the pilot study. The cronbach's alpha values of both the instruments are found to be significant as shown in table 6 and 7 respectively.

Karl Pearson's coefficient of correlation was performed in order to find out the correlation between procrastination and internet addiction. The significance of coefficient of correlation was also calculated by using 2-tailed significant value. A high correlation ($r = 0.91$, $p < 0.00$) was found between procrastination and internet addiction. Further Fishers T-test was applied to test the hypothesis H_{01} which states that the level of internet addiction does not lead to procrastination. The findings reject the hypothesis and concluded that internet addiction leads to procrastination. This result support that the more addictive to the internet a person is, the more procrastination he/she has which interferes that people high in internet addiction are more likely procrastinator.

Impact of internet addiction dimension on procrastination

The correlations between procrastination and (i) excessive use (ii) neglecting work (iii) anticipation (iv) lack of control (v) neglect of social life (vi) salience were 0.95 ($p < 0.001$), 0.94 ($p < 0.00$), 0.79 ($p < 0.00$), 0.89 ($p < 0.00$), 0.72 ($p < 0.00$), 0.69 ($p < 0.001$) respectively.

Table 8 exhibits that 'excessive use' is one of the most important dimensions of internet addiction for procrastination followed by 'neglecting work'. 'Anticipation' is also a most important factor while predicting procrastination. The table 8 reveals that 'salience' is least preferred dimension.

For testing null hypotheses from H_{02} to H_{07} Anova and multiple regression equation was developed. The model summary of multiple regression model has been given in Tables 9 to 12. Table 13 depicts the status of these hypotheses. On the basis of Anova results hypotheses from H_{02} to H_{07} were rejected and concluded that the all six dimension of internet addiction positively correlated and significantly affect the procrastination.

Conclusion

The present research was conducted as a preliminary survey to study the extent of excessive internet use and to determine its correlation with procrastination using a conservative definition of ">15 hours" week of average use as excessive internet use and it was found that 48% of respondents are

excessive users. These users use internet to such an extent that it interferes with their daily work and they are very much preoccupied with it. Our study suggests that excessive internet use is directly leads to procrastination. Significantly more respondents, who use the internet excessively, feel that they are having a tendency to delay initiation or completion of important tasks. Finding have demonstrated that there are significant relationships among the different variables of internet addiction i.e. salience, excessive use, neglecting work, anticipation, lack of control, and neglecting social life. Also multiple regression equation and analysis of variance indicated that the model was acceptable and that correlation among measures was explained by the model.

The study revealed the fact that procrastination was envisaged positively by internet addiction recent studies on internet addiction demonstrated that internet addiction positively related to declination in social interactions, depression, loneliness, and lower self esteem (Ko, Yen, Chen et al. 2005; Kraut et al.; 1998). Thus it can be said that this finding is reliable with other studies which have found a positive association between depression and internet addiction (Kraut et al.; 1998, 2002; Mckenna & Bargh, 2000; Nie et al. 2002; Young & Rogers, 1998). Hence, it appears that internet addiction may enhance procrastination and if individual decrease the habit of excess use of internet, their level of procrastination may also decrease.

Consistent with this suggestion in our study internet addiction was linked positively to procrastination. These results indicate that the more addictive to the internet a person is, the more procrastination he/she has.

In conclusion, this investigation reports that internet addiction affects procrastination. People high in internet addiction are more likely procrastinators. So, the recent findings increase our understanding of the relationships between internet addiction and procrastination.

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