

Evaluation of Internet Anxiety in SRBIAU Higher Education Students in Research Process

Nima Babazadeh Gashti, and Nazanin Pilevari

Abstract—Increase in using internet makes some problems that one of them is "internet anxiety". Internet anxiety is a type of anxious that people may feel during surfing internet or using internet for their educational purpose, blogging or streaming to digital libraries. The goal of this study is evaluating of internet anxiety among the management students. In this research Ealy's internet anxiety questionnaire, consists of positive and negative items, is completed by 310 participants. According to the findings, about 64.7% of them were equal or below to mean anxiety score (50). The distribution of internet anxiety scores was normal and there was no meaningful difference between men's and women's anxiety level in this sample. Results also showed that there is no meaningful difference of internet anxiety level between different fields of study in Management. This evaluation will help managers to perform gap analysis between the existent level and the desired one. Future work would be providing techniques for abating human anxiety while using internet via human computer interaction techniques.

Keywords—Internet, anxiety, research process, internet identification, human computer interaction.

I. INTRODUCTION

A. Historical Perspective of Anxiety

EVERYONE has felt a little anxious at one time or another. It may have been when you were dealing with issues of work, school, or relationships with family, friends, or significant others. You may also have felt fear about something in particular. For example, fear of heights, closed spaces, or spiders. According to the biological perspective, there are three basic conditions which elicit anxiety: overstimulation, cognitive incongruity, and response unavailability. Overstimulation refers to when a person is flooded with information. Cognitive incongruity is when a person has difficulty reconciling with some event, for example, the loss of a loved one. Response unavailability refers to when a person does not know how to handle a difficult situation.

There are three reasons for the motivation of fear and anxiety from the cognitive perspective; loss of control, inability to make a coping response, and state anxiety versus trait anxiety. Loss of control refers to a situation when there are unpredictable or uncontrollable events in one's life which lead to anxiety and/or depression. As a result, feelings of helplessness develop. The unpredictability which may be associated with a task may cause anxiety [1]. The inability or

perceived inability to make an adaptive response to a threatening event or the fact or perception that no such response is available will lead to feelings of anxiety. Since anxiety is very ambiguous, it is the key which prevents the elaboration of clear action patterns to handle the situation effectively [2].

B. What is Anxiety

Anxiety is an acquirable or conditioned drive which functions to motivate avoidance responding [3]. Therefore, the avoidance response is assumed to be reinforced by a reduction in anxiety. Fear is a conditioned response to pain. If one experiences pain in a specific situation, the stimuli associated with that situation acquires the ability to evoke the same emotional reaction that the pain originally elicited [4].

Anxiety is a general term for several disorders that cause nervousness, fear, apprehension, and worrying. These disorders affect how we feel and behave, and they can manifest real physical symptoms. Mild anxiety is vague and unsettling, while severe anxiety can be extremely debilitating, having a serious impact on daily life.

People often experience a general state of worry or fear before confronting something challenging such as a test, examination, recital, or interview. These feelings are easily justified and considered normal. Anxiety is considered a problem when symptoms interfere with a person's ability to sleep or otherwise function. Generally speaking, anxiety occurs when a reaction is out of proportion with what might be normally expected in a situation.

C. Generalized Anxiety Disorder (GAD)

Generalized anxiety disorder is a chronic disorder characterized by excessive, long-lasting anxiety and worry about nonspecific life events, objects, and situations. GAD sufferers often feel afraid and worry about health, money, family, work, or school, but they have trouble both identifying the specific fear and controlling the worries. Their fear is usually unrealistic or out of proportion with what may be expected in their situation. Sufferers expect failure and disaster to the point that it interferes with daily functions like work, school, social activities, and relationships.

D. Panic Disorder

Panic Disorder is a type of anxiety characterized by brief or sudden attacks of intense terror and apprehension that leads to shaking, confusion, dizziness, nausea, and difficulty breathing. Panic attacks tend to arise abruptly and peak after 10 minutes, but they then may last for hours. Panic disorders usually occur after frightening experiences or prolonged stress, but they can

Nima Babazadeh Gashti is with Department of Economics and Management, Science and Research Branch, Islamic Azad University, Tehran, Iran (Nimabbz@gmail.com).

Nazanin Pilevari is with Islamic Azad University, Shahr-e-Rey Branch, Tehran, Iran (Phone: +989122178633; n_pilevari@yahoo.com).

be spontaneous as well. A panic attack may lead an individual to be acutely aware of any change in normal body function, interpreting it as a life threatening illness – hyper vigilances followed by hypochondriacs. In addition, panic attacks lead a sufferer to expect future attacks, which may cause drastic behavioral changes in order to avoid these attacks.

E. Social Anxiety Disorder

Social Anxiety Disorder is a type of social phobia characterized by a fear of being negatively judged by others or a fear of public embarrassment due to impulsive actions. This includes feelings such as stage fright, a fear of intimacy, and a fear of humiliation. This disorder can cause people to avoid public situations and human contact to the point that normal life is rendered impossible.

F. Obsessive-Compulsive Disorder

Obsessive-Compulsive Disorder (OCD) is an anxiety disorder characterized by thoughts or actions that are repetitive, distressing, and intrusive. OCD sufferers usually know that their compulsions are unreasonable or irrational, but they serve to alleviate their anxiety. Often, the logic of someone with OCD will appear superstitious, such as an insistence in walking in a certain pattern. OCD sufferers may obsessively clean personal items or hands or constantly check locks, stoves, or light switches.

What is Post-Traumatic Stress Disorder (PTSD)?

G. Post-traumatic Stress Disorder

Post-traumatic Stress Disorder (PTSD) is anxiety that results from previous trauma such as military combat, rape, hostage situations, or a serious accident. PTSD often leads to flashbacks and behavioral changes in order to avoid certain stimuli.

What is Separation Anxiety Disorder?

H. Separation Anxiety Disorder

Separation Anxiety Disorder is characterized by high levels of anxiety when separated from a person or place that provides feelings of security or safety. Sometimes separation results in panic and it is considered a disorder when the response is excessive or inappropriate. Using internet for different purposes maybe makes some kind of anxiety. In this article internet anxiety will be discussed.

These days people use computers and internet more than past years. Some of their activities are: browsing web contents, chatting with IMs¹, reading books, online shopping, virtual tours, sending emails, and search for music or listening to online radios, blogging, using social networks and so on. So it may happen that people feel uncomfortable while using the internet applications. Growing the number of internet base activities are growing and this makes internet a primary source for research, business, education games, shopping and many more.

¹ Instant Messaging Software

Growing internet effect on today's life is undeniable. People can use internet to do things better and faster, in contrast it can be a source of anxiety or depression to some extent. Web application should have a good user interfaces to reduce these feelings and give more power to user, because a bad user interface can limit using all internet potentials.

Some countries, like Finland use internet for medical purpose such as telemedicine, electronic medical systems and abating anxiousness of human anxiety with technology. It cannot be denied that measuring mental state of human such as behavior, emotional states, frustration and distraction are limited to qualitative study. New evaluation techniques which monitor and measures human internet anxiety while on the internet are increasingly important and necessary to gather information about human behavior on internet. With these information developers can make more user friendly apps that reduce anxiety while using them.

Human are facing problems that makes them anxious while usage of internet growth. Human anxiety is defined a type of stress felt by human while surfing and using internet. Internet anxiety is the fear or apprehension that an individual experience when using the internet [5].With growing usage of internet, many types of stress such as internet addiction, social anxiety disorder or mood disorder will be appearing. So the internet technology is not addictive, but contents on the internet can be a source of internet addiction. Some researchers purport that social networking web pages such as Facebook and Tweeter or some online games such as Travian have caused high internet addiction. Internet addiction may cause to several problems which may result in health, personality, financial. Moreover those who are addicted to internet spend more time on the internet compared with real world.

When a person uses internet too much, internet security is an important part for him. He may keep important data on his online services or social networks, so no one can deny that those who are too much involved on the internet can exhibit anxiety of using the internet contents.

Studying and gathering information behavior of human was at a heed place for informing scope researchers. Many researchers researched in this area, Wilson, Ellis, Kuhlthau, Dervin and Belkin's Models [6].

Kuhlthau's model was one of the most important models in 1991 about being informed. This model named "Model of Information Search Process" was mainly designed for traditional library users in an educational environment. Nowadays the internet acts an important role in informing people including M.A. students. Users who seek for information on internet, maybe do not act like people that search in libraries. People who are searching in libraries, physically move from one place to another and can touch and watch information resources, but internet users cannot do this. Nevertheless, Byron's research shows that informing students in a virtual learning environment is verified with Kuhlthau research; this means that information searching process method is independent of physical library environments [7].After him some researchers like Holliday and Li concluded

that we can apply this model to users who are searching for information on internet [8], [9].

Kuhlthau discussed about anxiety while searching for information in his model. This anxiety was researched as library anxiety template and research anxiety template[10], [11], [12]. As we mention internet makes an important role in informing specially for students. So this technology brings a new anxiety to us, named "the internet anxiety". So it is important for us to evaluate how much this anxiety affects the process of searching for information.

Awareness of internet anxiety of users helps librarians and inductors to guide them through searching for information using internet to decrease their anxiety and increase in their performance finding relevant information. A large number of human who overuse the internet can be the victim of behavioral addiction (internet addiction and internet anxiety). Hence, the literature of human anxiety has to be carried out.

II. LITERATURE REVIEW

Increase in using internet, makes some problems that one of them is "internet anxiety". Internet anxiety will appear after library anxiety and computer anxiety. Swope &Katzner do the first evaluation about library anxiety in 1972 and that was first researches in this scope. In 1986, Mellon wrote an article that he uses "Library Anxiety" term which prepares the groundwork for researching in this scope. Bostick in 1992 makes the next step. He defines a "Library anxiety scale" to measure library anxiety.

A. Internet Anxiety

The online Cambridge dictionary defines anxiety as "an uncomfortable feeling of nervousness or worry about something that is happening or might happen in the future, something that causes a feeling of fear and worry." Many researchers have defined internet anxiety. Many researchers have defined Internet anxiety. Anxiety is defined as an unpleasant state of emotion in human or characterized by tension, worry and apprehension. Anxiety could be defined as feeling of frustration, nervousness, worry and discomfort of using applications on the Internet. The feelings associated with anxiety are based on work related overload and stress [13]. Internet anxiety is defined as the feeling of fear or apprehension which individuals experiences when considering use of the Internet[5]. More recently, Internet anxiety has been defined as "a feeling of fear and apprehension felt by individuals when using computers or considering the use of a computer [14]."

Indeed, the source of internet anxiety is based on cognitive aspects of human brain. Comparing human brain and the Internet, human brain has a part called thalamus that filters information to relevant and irrelevant parts whiles on the internet there are no such filter. So people may catch irrelevant information while surfing web or searching for an exact data. Human anxiety on the Internet is caused by computer anxiety without influence of an organization [15]. Thus, Internet might fulfill some of the human needs by helping in making social contacts and providing sense of belongingness[16], [17], [18].

But being anonymous on the Internet, human can feel less inhibited and intimidated [19]. This is further supported stating that Internet communications alleviates social rejection [20]. However, some evidence has suggested that those with less face-face interaction tends to use the Internet more for social interaction and information searching [21].

Presno defines four scopes of the internet anxiety: internet terminology anxiety, internet search anxiety, internet time delay anxiety and general fear of internet failure. His research emphasizes that concern about low self-efficiency has an important role in making different form of internet anxiety, such that participants reprove themselves while they cannot find proper results in their searches.

Shamo studied Presno's findings on university students. Research on university students' shows that a major group of students have internet time delay anxiety, but other three type of anxiety (internet terminology anxiety, net search anxiety and general fear of internet failure) have a less significant effect. Results also show inequality of internet anxiety between men and women. Women blurt more anxiety in all 4 type of anxiety, especially internet terminology anxiety, results was two times as men [8].

Most of other researches in anxiety scope were discussed about correlation of internet anxiety with variables such as gender, age, users' field of study, self- efficiency and internet identification [22], [23], [24], [25], [26].

Different types of anxiety are caused on the Internet. Therefore, there is an utmost need and demand to develop measuring and monitoring tools on the Internet using Human computer Interaction techniques. There are number of challenges for creating measuring and monitoring tools. The first challenge is to identify the focus group of users. To simplify the task, usability design and user experiences techniques could be employed for the creation of such tools. Secondly, for measuring each types of anxiety, resources are necessary. These resources could be simple or complex such as camera, video recorder, eye-monitoring tools and data gatherings tools. Nevertheless, the review finding indicates that many of the current challenges in the study of human anxiety have not been addressed.

B. Library Anxiety, Computer Anxiety

Library anxiety will appear when somebody goes to a library and decides to search on a certain topic, but he finds himself unable to search the information and find useful results. Characteristics of this type of anxiety are: Negative feelings like doubt, fear, tension or unorganized mental feelings [27].

Computer anxiety is a new psychological notion which is very important that appears with using computers in libraries for searching information and informing. So computer anxiety is an emotional form of anxiety that will appears when a user is searching by computers and that person does not know much about computers, so he thinks computer as a challenge. Computer anxiety extends negative emotions of user so he will give up learning computer skills or facing with it.

Nowadays internet usage is growing and internet anxiety problem is an important research issue for master students. *Internet anxiety* is defined as fear panic or horror that users faced while surfing the internet. Internet anxiety is related to computer anxiety because of using computers in this method of search. Internet anxiety consists of emotion or feeling because of using web-dependent applications. While computer anxiety is about daily experiences with computer, internet anxiety is about problems with information technology including internet usage [28].

III. HYPOTHESIS

How much internet anxiety feels by IAU Ph.D. and M.A. students in searching for data related to their researches, proposal and other university related data?

- i. There is a meaningful correlation between average mark of the Internet anxiety (50) and internet anxiety mark of Ph.D. M.A. students.
- ii. There seems to be a difference between the Internet anxiety of male and female M.A. students.
- iii. Students of different disciplines have different levels of the Internet anxiety.

IV. RESEARCH METHOD

A. Method

Participants were doctorate of philosophy and master students of Management and Economic Faculty of Science and Research Branch of Islamic Azad University (Tehran) which are studying Management. Statistical Populations were about 1589 students. According to Morgan's Table, sample size should be 310 students, there is 10 category of management (Information Technology Management, Industrial Management, Public Sector Management, Healthcare Management, Technology Management, Business Management, Urban Management, Financial Management, Executive Management and Education Management), by using stratified random sampling determine number of sample for every category.

B. Questionnaire

A questionnaire utilized to measure internet anxiety of students. A questionnaire which consist of 20 question designed by Spielberger to measure the anxiety, Reed & Palumbo changed that questionnaire's terms to determine computer anxiety. After that Ealy convert computer anxiety test to Internet anxiety test by replacing "Internet" instead of "Computer" in Reed's test terms. In this paper researcher use Ealy's internet anxiety test which is made of 20 questions. A Cronbach Alpha was conducted on the modified instrument. The instrument yielded a pretest coefficient alpha of .96, a posttest 1 alpha of .89, and a posttest 2 alpha of .95.

V. RELIABILITY

The stability of the STAI^{II} scales was assessed on male and female samples of high school and college students for test-retest intervals ranging from one hour to 104 days. The magnitude of the reliability coefficients decreased as a function of interval length. For the Trait-anxiety scale the coefficients ranged from .65 to .86, whereas the range for the State-anxiety scale was .16 to .62. This low level of stability for the State-anxiety scale is expected since responses to the items on this scale are thought to reflect the influence of whatever transient situational factors exist at the time of testing. So several items were reverses coded. With these changes internet anxiety mark will be calculated, lower mark means lower internet anxiety and higher mark represent higher internet anxiety.

TABLE I
 NUMBER OF SAMPLES REQUIRED FROM DIFFERENT FIELD OF MANAGEMENT

| | n_k | N_k | $= \frac{N_k}{N}$ |
|-----------------------------------|-------|-------|-------------------|
| Education Management | 20 | 101 | 6.4% |
| Executive Management | 31 | 157 | 9.9% |
| Financial Management | 30 | 152 | 9.6% |
| Urban Management | 42 | 217 | 13.7% |
| Business Management | 51 | 260 | 16.4% |
| Technology Management | 22 | 114 | 7.2% |
| Healthcare Management | 35 | 178 | 11.2% |
| Public Sector Management | 35 | 178 | 11.2% |
| Industrial Management | 17 | 89 | 5.6% |
| Information Technology Management | 28 | 143 | 9% |
| Sum | 310 | 1589 | 100% |

^{II}Charles D. Spielberger, Richard L. Gorsuch, and Robert E. Lushene in 1964, State Trait Anxiety Inventory

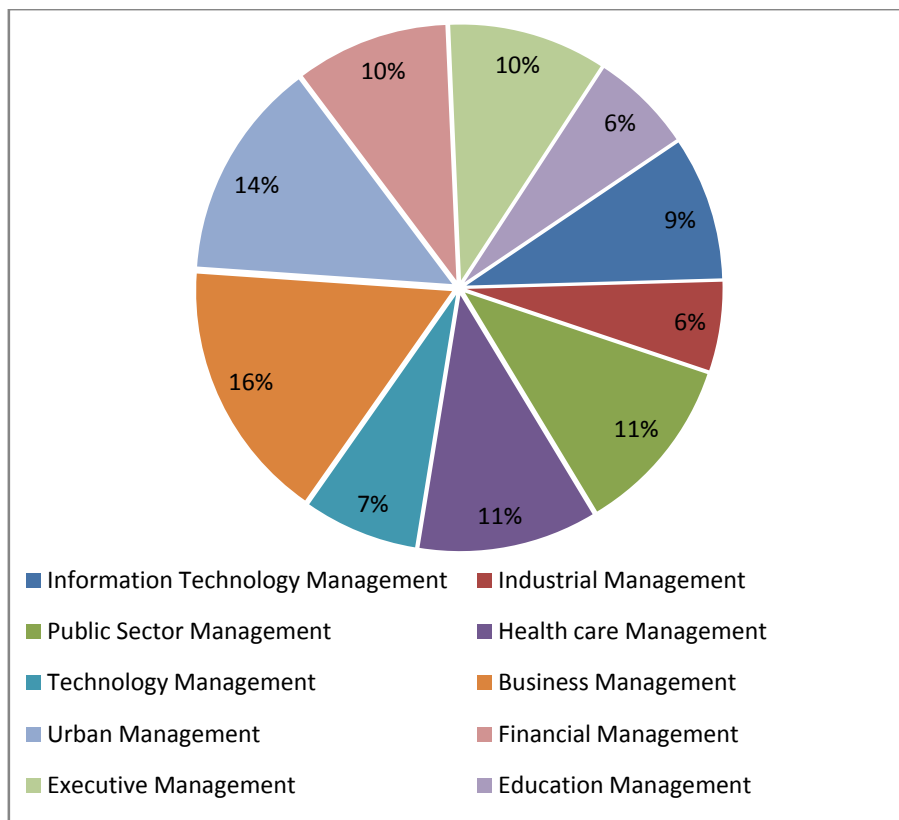


Fig. 1 Frequency of students in different branches of management

VI. FINDINGS

Demographic data's present in Table II. According to Table II, respondents consisted of 157 male and 143 female. Their population is approximately equal to each other. 52.3% of men and 47.7% of women were observed in this sample.

TABLE II
 GENDER DEMOGRAPHIC

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid Male | 157 | 52.3 | 52.3 | 52.3 |
| Female | 143 | 47.7 | 47.7 | 100.0 |
| Total | 300 | 100.0 | 100.0 | |

Table III represented frequency of students in different field of management. These frequencies which observed are approximately near of what researcher expected. Some questionnaires were imperfect so these questionnaires denied during this paper and analyses are based on other 300 questionnaire.

TABLE III
 FREQUENCY OF STUDENTS IN THIS SAMPLE

| | Freq. | Percent | Valid Percent | Cumulative Percent |
|-----------------------------------|-------|---------|---------------|--------------------|
| Valid Financial Management | 32 | 10.7 | 10.7 | 10.7 |
| Technology Management | 26 | 8.7 | 8.7 | 19.3 |
| Urban Management | 33 | 11.0 | 11.0 | 30.3 |
| Public Sector Management | 26 | 8.7 | 8.7 | 39.0 |
| Education Management | 22 | 7.3 | 7.3 | 46.3 |
| Executive Management | 44 | 14.7 | 14.7 | 61.0 |
| Information Technology Management | 30 | 10.0 | 10.0 | 71.0 |
| Industrial Management | 12 | 4.0 | 4.0 | 75.0 |
| Business Management | 48 | 16.0 | 16.0 | 91.0 |
| Healthcare Management | 27 | 9.0 | 9.0 | 100.0 |
| Total | 300 | 100.0 | 100.0 | |

A. Answer to the Main Question

How much internet anxiety feels by IAU Ph.D. and M.A. students in searching for data related to their researches, proposal and other university related data?

As mentioned above, here a questionnaire is used that consisted of 20 questions. Table III shows frequency of internet anxiety marks. Range of scores can be between 20 and 80. Hence score 50 can be an average internet anxiety score.

The data of Table IV shows students have shown some degree of internet anxiety, about 64.7% of them was equal or below of mean score (50) and about 35.3% have shown signs of internet anxiety.

TABLE IV
 DISTRIBUTION OF INTERNET ANXIETY MARKS

| | Freq. | Percent | Cumulative Percent |
|-------|-------|---------|--------------------|
| Valid | 30 | 4 | 1.3 |
| | 31 | 8 | 2.7 |
| | 32 | 4 | 5.3 |
| | 34 | 6 | 7.3 |
| | 35 | 2 | 8.0 |
| | 37 | 4 | 9.3 |
| | 38 | 2 | 10.0 |
| | 39 | 2 | 10.7 |
| | 40 | 6 | 12.7 |
| | 41 | 6 | 14.7 |
| | 42 | 6 | 16.7 |
| | 43 | 20 | 23.3 |
| | 44 | 18 | 29.3 |
| | 45 | 18 | 35.3 |
| | 46 | 24 | 43.3 |
| | 47 | 6 | 45.3 |
| | 48 | 12 | 49.3 |
| | 49 | 28 | 58.7 |
| | 50 | 10 | 62.0 |
| | 51 | 8 | 64.7 |
| | 52 | 4 | 66.0 |
| | 53 | 4 | 67.3 |
| | 54 | 8 | 70.0 |
| | 55 | 6 | 72.0 |
| | 56 | 8 | 74.7 |
| | 57 | 26 | 83.3 |
| | 58 | 4 | 84.7 |
| | 59 | 6 | 86.7 |
| | 60 | 10 | 90.0 |
| | 61 | 4 | 91.3 |
| | 62 | 2 | 92.0 |
| | 63 | 2 | 92.7 |
| | 64 | 8 | 95.3 |
| | 65 | 2 | 96.0 |
| | 66 | 4 | 97.3 |
| | 67 | 2 | 98.0 |
| | 68 | 2 | 98.7 |
| | 69 | 2 | 99.3 |
| | 70 | 2 | 100.0 |
| Total | 300 | 100.0 | |

Fig. 2 shows rectangular diagram according to the internet anxiety score. Although this diagram shows that these data are normal, but Table V represent a kolmogorov-smirnov test results.

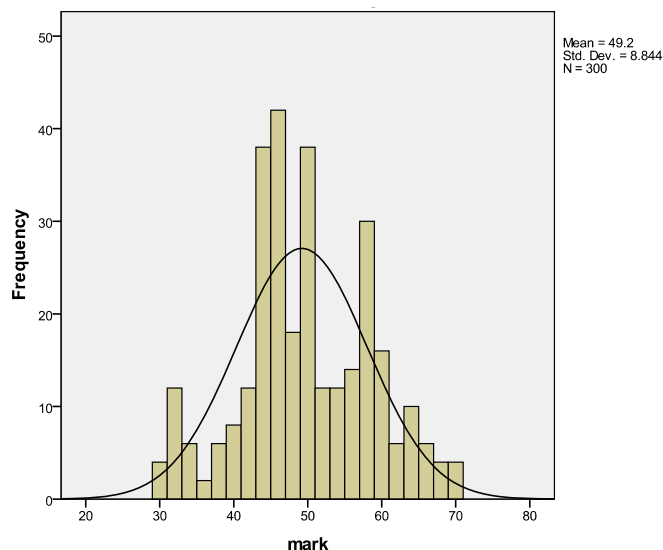


Fig. 2 Internet anxiety frequency diagram

Results of this test describe that these data for internet anxiety mark are normal ($z=1.657$, $p=0.008$)

TABLE V
 KOLMOGOROV-SMIRNOV TEST

| | | mark |
|----------------------------------|----------------|--------|
| N | | 300 |
| Normal Parameters ^{a,b} | Mean | 49.20 |
| | Std. Deviation | 8.844 |
| Most Extreme Differences | Absolute | 0.096 |
| | Positive | 0.096 |
| | Negative | -0.075 |
| Kolmogorov-Smirnov Z | | 1.657 |
| Asymp. Sig. (2-tailed) | | 0.08 |
| a. Test distribution is Normal. | | |
| b. Calculated from data. | | |

B. Test of Hypothesis One

There is a meaningful correlation between average mark of the Internet anxiety (50) and internet anxiety mark of Ph.D. M.A. students.

One sample t-test used to check this hypothesis. Result of this test show meaningful correlation in 95% confidence interval percentage between this sample students and average score.

TABLE VI
 ONE-SAMPLE T-TEST

| | N | Mean | Std. Deviation | Std. Error Mean |
|------|-----|-------|----------------|-----------------|
| mark | 300 | 49.20 | 8.844 | .511 |

Mean of sample in this test is 49.2 and standard deviation is equal 8.844. T value is 96.353 with 299 degree of freedom. So there is a significant difference between the sample marks and average mark.

TABLE VII
 ONE-SAMPLE T-TEST

| Test Value = 0 | | | | | | |
|----------------|--------|-----|-----------------|-----------------|---|-------|
| mark | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| mark | 96.353 | 299 | .000 | 49.200 | 48.20 | 50.20 |

C. Test of Hypothesis Two

There seems to be a difference between the Internet anxiety of male and female PhD and M.A. students.

By running a two samples approximate T-test, results shows average of men internet anxiety marks in this sample is 48.45 while the score of females is 50.02. So there is a

meaningful difference between this two group's anxiety marks that imply women in this sample were more anxious while surfing the internet.

This hypothesis was tested for independent samples with a two samples approximate T-test. As mentioned in Table VIII, there is a slight different between male and female internet anxiety marks (-1.569) but this difference is not meaningful in 95% confidence interval (p=0.123) so the null is rejected with this sample according to this data. So there is no significant difference between the internet anxiety of male and female PhD and M.A. students.

TABLE VIII
 INDEPENDENT SAMPLES TEST

| mark | Levene's Test for Equality of Variances | t-test for Equality of Means | | | | | | | | |
|------|---|------------------------------|------|--------|---------|-----------------|-----------------|-----------------------|---|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| mark | Equal variances assumed | 2.508 | .114 | -1.538 | 298 | .125 | -1.569 | 1.020 | -3.576 | .439 |
| | Equal variances not assumed | | | -1.548 | 297.368 | .123 | -1.569 | 1.013 | -3.563 | .426 |

TABLE IX
 GROUP STATISTICS

| Gender | | | Bootstrap ^a | | | | |
|--------|--------|-----------------|------------------------|-------|------------|-------------------------|--------|
| | | | Statistic | Bias | Std. Error | 95% Confidence Interval | |
| | | | | | | Lower | Upper |
| mark | Male | N | 157 | | | | |
| | | Mean | 48.45 | -.04 | .77 | 46.81 | 49.81 |
| | | Std. Deviation | 9.387 | -.087 | .460 | 8.470 | 10.188 |
| | | Std. Error Mean | .749 | | | | |
| | Female | N | 143 | | | | |
| | | Mean | 50.02 | -.04 | .67 | 48.53 | 51.29 |
| | | Std. Deviation | 8.161 | -.051 | .446 | 7.267 | 8.932 |
| | | Std. Error Mean | .682 | | | | |

a. Unless otherwise noted, bootstrap results are based on 300 stratified bootstrap samples

TABLE X
 BOOTSTRAP FOR INDEPENDENT SAMPLES TEST

| mark | Mean Difference | Bias | Std. Error | Sig. (2-tailed) | 95% Confidence Interval | | |
|------|-----------------------------|--------|------------|-----------------|-------------------------|--------|------|
| | | | | | Lower | Upper | |
| mark | Equal variances assumed | -1.569 | .004 | 1.039 | .133 | -3.702 | .316 |
| | Equal variances not assumed | -1.569 | .004 | 1.039 | .133 | -3.702 | .316 |

a. Unless otherwise noted, bootstrap results are based on 300 stratified bootstrap samples

D. Test of Hypothesis Three

Students of different disciplines have different levels of the Internet anxiety.

Central indicators and dispersions of all ten fields of management are represented in Table XI. According to these data Information Technology Management students have the lowest internet anxiety average mark (43.08), On the other hand, Education Management students have the highest internet anxiety average mark (53.23). The average internet anxiety in this sample is 49.2.

To test this hypothesis in this case, One Way Analysis of Variance has been used. Table XI shows different anxiety marks between management fields, using one way analysis of variance will determine that is there a meaningful difference between internet anxiety of different fields of management or not. According to Table XII, in 95% of interval confidence this hypothesis rejected ($p=.247$). So this means in 95% of interval confidence this difference is not significant in this sample.

TABLE XI
 DESCRIPTIVE STATISTICS OF BRANCHES

| | N | Mean | Std. Deviation | Min | Max |
|-----------------------------------|-----|-------|----------------|-----|-----|
| Financial Management | 32 | 49.5 | 12.841 | 30 | 69 |
| Technology Management | 26 | 50.27 | 7.492 | 39 | 65 |
| Urban Management | 33 | 46.64 | 6.981 | 30 | 66 |
| Public Sector Management | 26 | 52.56 | 10.135 | 30 | 70 |
| Education Management | 22 | 53.23 | 6.399 | 34 | 61 |
| Executive Management | 44 | 51.18 | 8.162 | 34 | 68 |
| Information Technology Management | 30 | 43.08 | 3.029 | 35 | 46 |
| Industrial Management | 12 | 45.95 | 9.398 | 31 | 64 |
| Business Management | 48 | 46.15 | 6.265 | 31 | 57 |
| Healthcare Management | 27 | 45.56 | 5.416 | 32 | 57 |
| Total | 300 | 49.2 | 8.884 | 30 | 70 |

TABLE XII
 ANOVA TEST

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|-------|------|
| Between Groups | 2733.601 | 9 | 303.733 | 4.265 | .247 |
| Within Groups | 20654.399 | 290 | 71.222 | | |
| Total | 23388.000 | 299 | | | |

VII. CONCLUSION

The amount and severity of anxiety that is faced is important in determining whether it will impair the functioning of an individual. There are several different perspectives on the motivations of fear and anxiety: cognitive, learned and physiological. There is always some physiological reaction that occurs when an individual experiences fear and anxiety. Both the cognitive and learned perspectives help us understand the motivations of fear and anxiety.

The results of this study showed that 64.7% of students have low anxiety compared with average anxiety mark (50). This is consistent with Joiner's research [29], their research verify that majority of students were not anxious. Other researches in this scope were discussed about correlation between internet anxiety and gender of people, age, field of studying, Internet self-efficacy or internet identity. First hypothesis was expressed to measure difference between average internet anxiety marks of students and normal internet anxiety.

Results of first hypothesis show that there is a meaningful correlation between average mark of the Internet anxiety (50) and internet anxiety mark of Ph.D. M.A. students. According

to previous researches, there is a negative meaningful correlation between internet usage and internet anxiety [22], [23], [24], [25], [29]. Other factors such as Internet self-efficacy [5], [24], [26] and Internet Identity [25], [30], [25] are affecting internet anxiety. Hence it seems work experience or background information about computers and internet is a positive point to anxious while using internet. In other words, since the sample is a part of students who are studying PhD and M.A. they have more experience with internet and higher internet self-efficacy and internet identity. They believe that internet is a source of information, so they can rely on internet to do their searches or other usage for studying purposes.

Results of second hypothesis shows that although women shows more anxiety while surfing internet, but according to statistical tests this difference is not meaningful and researcher cannot accept null hypothesis of this test. Some researches show meaningful difference between men's anxiety compared with women [8], [24], [23], [29], [26], while in some researches there was not meaningful difference between anxieties of these two groups of people [22], [24], [25], [30]. In major cases that there was difference of internet anxiety (low or high difference) women were more anxious. Maybe

one of the parameters which can effect on this difference is internet experience and job experience that improve their internet self-efficacy while using internet. Maybe if another research done on undergraduate students, they show a meaningful difference. However, other researches are needed to determine is gender an effective parameter on internet anxiety or not.

The third hypothesis rejected, which means different field of students have not different levels of internet anxiety. Some researchers conclude that field of study of students has effect on internet anxiety [22], [23].

It should be noted that in today life internet has an important role in different types of activity in daily life and we can access to large number of information resources just by using internet. We should mention that sample of this research was PhD and M.A. students who graduated before and have enough experience for using internet. As researchers mention, internet experience and internet anxiety have negative meaningful correlation and this can be a result of rejecting 2th hypothesis.

To reduce internet anxiety it is better that universities or librarians held workshops to learn and improve internet searching process for information done by students. Managers who schedule syllabus for students can make changes for new students to participate in courses like internet introduction or internet usage. Increase in knowledge about internet will reduce internet anxiety.

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