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A study to determine the predictors of game addiction based on loneliness, motivation and interpersonal competence

A Research Report Submitted

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Abstract

The objective of this study is to determine the predictor that will lead towards Online Game Addiction. The dependent variable of this study is Online Game addiction and the independent variables is Loneliness, Inter-personal Competence and Regulatory Focus (Promotion and Prevention Motivation). The data was collected through convenience sampling technique from 500 respondents who is playing online game on a daily basis in Karachi. SPSS software were used to test the hypothesis. The finding of the research is Regulatory Focus, Loneliness, and Inter-Personal Competence have a significant impact on Online Game Addiction. The recommendation for a future researcher is to increase their sample size and variable in order to study this topic more deeply.

Keywords: Online Game Addiction, Competence, Regulatory Focus, Loneliness, Higher Education.

Chapter # 1

Introduction

1.1 Background of Study:

The advance technology evolution, the high-speed internet particularly, has brought success in all areas of our lives (Raza et al., 2020). Furthermore, significant advantages from technology have been acquired by individuals. On the other hand, new kinds of difficulties have also been constructed by the evolution of technology that were not happen in past (Ali et al., 2018). Online game addiction is the one. Online game addiction is a mental disorder (e.g. Kim et al., 2009; Lu and Wang, 2008). First, it produces negative outcomes on our mental health like anxiety, insomnia, social isolation, and depression. Second, it increases aggressive behavior by violent online games. Third, it can badly affect our academic performance. Forth, and the last it can increase the risk of Obesity because if a person is addicted to online games he/she skip their physical exercises.

This study is about the factors influencing Online Game Addiction. The research is carried out in Karachi, Pakistan. The factors used in this study to predict Online Game Addiction are considered as the major factors which influences Online Game Addiction. These are Loneliness, Regulatory Focus and Interpersonal Competence. The paper's objective is to determine the predictors of online game addiction based on Loneliness, Motivation, and Interpersonal Competence.

In the surroundings of computer or cellphone instruments, online games can be played, although online game addiction is characterized as a dysfunctional psychological dependency on online games "by the addictive-driving design of finding and using conducts that happen at the charge of other duty". New literature has concentrated on loneliness as the crucial factor of online game addiction. Loneliness is considered as giving motivation to individual's conduct, as much as current community is specified as the age of loneliness. Loneliness comprises of inter-personal isolation, intrapersonal and experiential isolation. For that reason, loneliness is not restricted to the absence

of social interactions but consists of not being associated anywhere. Considering that a need to be owned by control our thoughts, emotions and inter-personal behaviors, how loneliness affects online game addiction must be considered. (Lee et al., 2018).

Present investigation has demonstrated that cumulative regulatory focus in a team links to team innovation because cumulative regulatory focus is a depending variable that applies motivational effect on workplace performance (Rietzsehel, 2011; Shin et al., 2016). Team regulatory focus either motivates or discourage information growing in team members by affecting groups' motivations to get knowledge and analyze. Combining with the motivated information growing aspect, we suggest a relationship that is not direct that team regulatory focus has with team innovation through team-level information growing. We pay attention on team perspective taking, which requires sharing, examining, and combining the way of thinking of every teammate, and has been presented to increase team innovation (Hoever et al., 2012). This is by reason of innovation is a function of developing good concepts and generating these concepts away from their basic state (Somech and Drach-Zahavy, 2013), which demands members not only seeing various point of views but also combing them (Hoever et al., 2012). Of the personal-level information processing activities, this research pays attention on personal information explanation – the investigation for and discussions of Team members' information and aspects concerning team tasks, which has been shown to increase developing new ideas (Li et al., 2015).

With anxiety on the conversation and socialization side of online gaming, we need various views from those of the prior to examine online gaming and draw on social capital theory. Online games can play the part of motivation for both the development of new associations and the enhancing of

current relationships. Gamers play online games for entertainment, stress release, and for attaching with other players also.

On the other hand, past investigation on social connection as part of online gaming has concern with one of the two types of social interaction: connecting for creating new associations or joining for enhancing current affiliations. For this reason, the purpose of this research is to answer the following research questions: (1) can a new outcome factor take place of the conventionally used outcome factors like flow or addiction? And (2) what parts do online games play in social connections? We first investigate if a new outcome factor, “the continuance of online gaming”, can take place of other ideas frequently used in the past such as addiction or flow. Second, drawing from the bridging and bonding ideas administered by Putnam’s social capital theory, this paper investigates whether social interaction between online gamers can strengthen previous relationships built in their “real” life, and/or facilitate new social relations between online gamers.

1.2 Problem Statement:

Past investigation specified that individual who are socially away from other individuals and alone can get ease by engaging in computer simulation (Caplan et al., 2009). Loneliness was considered to be the most significant anticipating factor of problematic internet use among loneliness, depression and computer self-efficacy (Ceyhan and Ceyhan, 2008). Loneliness, self-esteem and life satisfaction were declared to explain 38 percent of the total variance in internet addiction, and loneliness was the most significant factor forecasting internet addiction (Bozoglan et al., 2013). With online game addiction’s association to internet addiction (Jiang, 2014), we can conclude the relation between loneliness and online game addiction, by including to the past investigations concerning loneliness and online game addiction.

Even though, only a limited researches precisely examine the relation between loneliness and online game addiction, the reason was that greater online game addiction types are described in Massively Multiplayer Online Role-Playing Games (MMORPGs) than in different kinds of online games gives a solid affirmation on the socializing nature of online games as the collective social opportunity (e.g. Chappell et al., 2006; Lee and Hoadley, 2006; Barnett and Coulson, 2010). For instance, previous literature confirms that the online game environment gives interesting socializing opportunities for isolated individuals (Lemmens et al., 2009). In spite of that, few empirical study shows how isolated people are interested to online games and are addicted to the end. Appropriately, this investigation is specifically involved in the inspiration of isolated gamers in some online game surroundings.

1.3 Research Objective

To examine the predictors that will lead an individual towards online game addiction. The target market for this research paper is those individuals who play online game on a daily basis and the research objective of this study is to examine the relationship between online game addiction with Loneliness, Regulatory Focus, and Inter-personal competence.

1.4 Research Question

The research question for this study is to find out the predictor that increases online game addiction. For instance, what is the impact of Loneliness on Online game addiction? What is the relationship between Regulatory focus and Online game addiction and what is the impact of Inter-personal competence on Online game addiction?

1.5 Significance of Study

This research is conducted to determine the impact of Loneliness, Regulatory focus, Interpersonal competence. In addition, this study is beneficial for psychologists and psychiatrists who are dealing with the patient of depression due to Online game addiction because psychologists and psychiatrists usually have limited time and they also do not intend to spend money on such time of research for their patients so it will directly help for both of them (psychologists and psychiatrists) in understanding the attitude of those patients who are depressed because of online game habit. Moreover, the research is also beneficial for future researchers who are interested in conducting a research in this topic. It is also beneficial for those who are related to this field and it is often useful for the parents whose child's behavior is starting to change just because of online addiction habit so it helps those parents to take immediate steps to save their children from this type of addiction.

1.6 Limitation and Delimitations

The limitation of our study is we have only studied selected variables, another limitation is we have run only a single mode of analysis to test the study. In addition, we have only studied the impact of four independent variables with one dependent variable. Furthermore, the target audience (sample size) of our study is also limited as we are only targeting those individuals who play online games. And the last limitation of our study is that we are only conducting this research in Karachi. In contrast, the delimitation of our study is that we can use more variables if we intend to, and we are also unable to work outside Karachi.

1.7 Organization of Study

This research paper is structure as follows. The introductory module portrays a comparative study. The next module based on Experimental framework. In addition, the third module define the research methodology. The fourth module is explaining the structural equating model (SEM). Moreover, fifth module include result, interpretation and discussion. In the sixth module, it explains theoretical and managerial implications. The seventh module consist limitation and upcoming study administration. The last module give conclusion.

Chapter # 2

Literature Review

2.1 Theoretical Background

2.1.1 Regulatory Focus Theory

The theory of Regulatory Focus urges two different self-regulatory systems that push individual's behavior and decision through following two separate goal-pursing strategies (Higgins, 1997). The past studies on motivation has clearly given a major prove on understanding people's behavior and decisions. From primary physiological needs to societal development. In order to understand the theoretical background of motivation, social scientist play a vital role in order to distinguished advance related concerns from security related concerns. Moreover, regulatory focus theory defined two separate elements. The first element is known as Promotion motivation which refer towards advancement, for instance development (Maslow,1955) and nourishment (Bowlby, 1969). On the other hand, the second element is known as Prevention-Focused motivation which deal with the security concerns for instance protection (Higgins, 1997) or safety (Molden et al, 2008). Persons who have promotion-focused motivation pay attention to other people perspective diligently and escort positive outcomes from them and always try to make reward-seeking responses. On the other hand, prevention-focused motivation people always try to take those type of decision which save them from significant losses and ensure safe and secure ways for accomplishing their objective (e.g. Higgins, 1997; Liberman et al., 1999; Molden et al., 2008; Lwin et al., 2016). If a person feel danger from any environment and they need security, then prevention-focused motivation stimuli is become active and start influencing his process of decision-making. On the other hand, if individual is seeking advancement for example (nourishment and growth) in any certain situation then his stimuli of promotion-focused motivation is active and start affecting his/her decision accordingly.

2.2 Empirical Studies

The objective of this research is to find out the factors of game addiction using interpersonal competence, loneliness and motivation. In addition, Regulatory focus, Loneliness, Interpersonal competence and Online game addiction used as a variable of this study. The data for this paper was collected through Quick Response Code and URL from online panel (means mobile phone user participate in the survey through QR code and internet user is through URL) 251 responses were received from South Korean college students. Moreover, Process Macro Models 4 and 14 were used to predict the result and the finding of the research is that online game addiction have a positive impact on loneliness and a negative impact on regulatory focus (mediator) and interpersonal-competence (moderator). Moreover, interpersonal competence has a negative impact on loneliness and positive with regulatory focus. Whereas loneliness has negatively correlated with regulatory focus. (Lee, Ko, and Lee, 2018)

The goal of this research paper is to investigate that how distinctive type of social interactions in small businesses, for instance cafes and restaurants can enrich elder client's experiences and relieve their loneliness using the theory of third places. In addition, social interaction and customer experience, social interaction and loneliness, Customer experience and loneliness are used as a variable of this study. Convenient sampling method was used to collect the data. 500 online survey questionnaires were distributed among the residents of Hong Kong whose age is 60 or more and who usually came to visit Cha Chaan Teng (serve hong kong style tea) more than once a year moreover only 411 logical responses were received. The AMOS and SPSS statistical model were used to test the hypothesis. The result of the research shows that there is a

significant relationship between social interaction and customer experience on loneliness. (Song et al, 2018)

Examine how and when team regulatory focus influences team innovation and member creativity. Dependent Variables include individual creativity and team innovation, Mediator is team perspective taking and employee information elaboration, and Moderator is team bureaucracy. Team Promotion Focus, Team Prevention Focus are independent variables. The data was collected from 56 R&D teams belonging to two multinational high-tech organizations which headquarters are in Taiwan. Multilevel analysis has been used to analyze relationships. Result shows Team promotion focus has significant relation with employee information elaboration, Team prevention focus has significant relation with employee information elaboration, Team promotion focus has significant relation with team perspective taking, Team perspective taking has significant relation with team innovation, Team prevention focus has significant relation with team perspective taking, Moderating effect of team promotion focus on member creativity along employee information elaboration vary as a result of centralized team structure. It has been suggested to managers that to encourage a team promotion focus by producing a decentralized factors. Furthermore, they make a team factors distinguished by greatly decentralized policy making which can release the advantages of team promotion focus to ease team perspective taking and team innovation. (Li, Xuan Li, and Ju Lin, 2018)

Seek to identify how does consumer regulatory focus impact perceived value and consumption emotions? The Variables are Regulatory Focus, Perceived Value, Behavioral Intentions and Consumption Emotions. The data was collected from 435 participants who are American customers and went to Asian restaurants within over 30 days. SPSS 21.0 and AMOS

24.0 has been used to test the relationships. Result indicates that there is insignificant relation between Prevention focus and hedonic value whereas promotion focus has significant relation with both perceived value dimensions. There is significant relation between prevention and negative emotions but there is no significant relation with positive emotions. There is strong positive relation of Prevention with negative emotions. There is inverse relationship between hedonic value and behavioral intentions whereas Utilitarian value and behavioral intentions are positively related with each other. There is significant result of both positive and negative emotions on customers' behavioral intentions. There is insignificant relationship between hedonic value and negative emotions, whereas there is significant effect of utilitarian value on negative emotions. (Song, and Qu, 2018)

The main objective of this study to examine the online gaming addiction by classify PC online gaming and mobile gaming also investigate the mostly playing game after midnight which is affects addictive behavior. In addition, the variables of this research is game genres, parental factors, leisure environment, and interpersonal relationship. The data was collected in this research from five different cities of Korea through survey questionnaire, around 28% respondents (PC games) and 48% respondents (mobile game). The result of this study determine through the help of SPSS. It is also indicating that escalate relationship among teen age and other addictive game players could facilitate to prevent online game addiction. (Sicheong & Sejong, 2016)

Examine the privacy dyad: Antecedents of promotion- and prevention- focused online privacy behaviors and the mediating role of trust and privacy concern. The dependent variables were mediators trust, privacy concern, and promotion focused behaviors. The independent variables were Reputation, Communication Quality, Information Sensitivity, Trust, Privacy Concern,

Promotion-focused Behaviors and Prevention-focused Behaviors. The data was gathered from 617 participants who were undergraduate and graduate students. MANOVA have been used to analyze relationships. Outcome shows positive relation of Customer trust with reputation of the organization, and quality of communication. Privacy concern have a negative relation with higher quality of communication and Information sensitivity. Trust have a positive relationship with Promotion-focused behaviors. Privacy concern have a positive relation with prevention-focused behaviors. Trust have a mediation relationship between reputation and promotion-focused behaviors, and between communication quality and promotion-focused behaviors. Privacy concern have a mediation relationship between the communication quality and prevention-focused behaviors, and between sensitivity of information appealed by the firm and prevention-focused behaviors. It has been suggested for future researchers to determine how various marketing transmission ways may increase perceived communication quality. What are other types of enhancing end user's beliefs and decreasing security regards. (Lwin, Wirtz, and Stanaland, 2016)

The objective of this research is to investigate the difference in feeling social anxiety and loneliness in playing World of Warcraft game in online world and real world. The variables of this research is loneliness, social anxiety, online world and real world. The data was collected through internet message board of world of Warcraft (WOW). Total 180 players were asked to take part in the research in which only 19 player not take participation in the research. The t-test statistical technique was run to determine the relation between social anxiety, loneliness in real world and online world. The finding of this research shows that there is a significant relationship between loneliness and social anxiety in online world and also in real world. (Martoncik, and Loska, 2015)

Seek to identify how Social exclusion causes a shift toward prevention motivation. Social exclusion, Regulatory focus, Recognition task and Mood were the Variables. The data was assembled from 150 respondents who were under graduated students in Study 1, the data was collected from 99 respondents who were under graduated students in Study 2 and in Study 3, the data was collected from 53 respondents who were under graduated students. In Study 4, the data was collected from 41 participants who were mechanical turks. Result presents positive relationship of Social exclusion with prevention focused motivation and negative relationship with promotion focused motivation in Study 1. In Study 2, Social exclusion have a positive relation with prevention motivation but does not have significant impact on promotion motivation. (Park, and Baumeister, and R.F,2015)

Examine Intraindividual and Interpersonal Outcomes and Underlying Mechanisms of Listening. The Variables are perceived listening quality, Social attraction, Trust, Clarity and Emotional well-being (PA). The data was gathered from 100 first-year students at the starting of their first semester belonging to English speaking university in Germany. Confirmatory factor analysis (CFA) has been used to analyze the relationships. Result revealed that Perceived-listening quality has positive relation with trust. Moreover, Social attraction has a mediation relation between perceived listening quality and trust, Perceived-listening quality has a Positive relation with well-being, and this relation was mediated by clarity. (Lloyd et al., 2015)

The purpose of this study is to form a tools for massively multiplier online game (MMOG) addiction there were few steps of instrument development to accomplish this objective such as instrument testing, scale development, and item generation for the conforming factors analyze by the MMOG addiction, there are the variables of this study that is technology addiction,

conceptualization, massively multiplier online game (MMOG) addiction, confirmatory factors analysis, and instrument development. The data was collected through questionnaire sampling. Pilot and field test was conducted with instrumental testing for MMOG. Prior study was run to analyze the data. The result shows that the relationship confirmatory factors analysis and massively multiplier online game (MMOG) addiction is no significant, whereas conceptualization, operationalizing, and massively multiplier online game (MMOG) addiction have significant relationship. (Lee et al., 2015)

The objective of this research paper is to determine the predictors of smartphone addiction symptoms and social capital using the psychological attributes such as loneliness and shyness. Variables of this study is loneliness, shyness, social capital and smartphone addiction symptoms. The data was collected through online survey from 414 universities students in mainland China. Regression model was run to analyze the data. The results shows that there is no significant relationship between loneliness and smartphone whereas there is a significant relationship between shyness and smartphone addiction. (Bian, and Leung, 2014)

The purpose of this research paper is to find out the relationship between life satisfaction, self-esteem, Loneliness, and internet addiction. The Independent variable which is used in this study is life satisfaction, self-esteem, loneliness whereas internet addiction used as a dependent variable. The data was collected from 384 two different universities students based on 114 males and remaining is female. The techniques which is used to gather data is a convenience sampling techniques. An email is sent to 1000 students with an email reminder among this only 38.4% students participates in the survey. In addition, SPSS software were run to test the hypothesis. The finding of this study is loneliness have a positive significant impact on internet addiction and self-

esteem have a negative significant impact on internet addiction. However, it also explains that there is no correlation between life satisfaction and internet addiction. This research paper provide help for those individual who are interested in determine such variables relationship with each other. (Bozoglan et al., 2013)

Examine the emerging factors affecting the continuance of online gaming: the roles of bridging and bonding social factors. Continuance of online gaming has been used as the dependent variable and Online gamer's skills, Online gamer's challenges, Online gamer's fantasy, Online gamer's enjoyment, Online gamer's online-bridging social capital, Online gamer's offline-bonding social capital are used as the independent Variables. The data was collected from 221 respondents belonging to one of the largest universities located in suburban Seoul, Korea. Structural equation modeling (SEM) have been used to analyze this relationship. Result shows positive relation of Online gamer's skills, Online gamer's challenges, Online gamer's fantasy, Online gamer's enjoyment, Online gamer's online-bridging social capital, Online gamer's offline-bonding social capital with Continuance of online gaming. (Kim et al., 2013)

The objective of this study is to determine the interrelationship between online gaming, internet connectedness, academic performance decrement and internet addiction symptoms among the people in china who is internet-dependent. In addition, the variables of the research is Internet Academic decrement (IAD), Internet connectedness (ICI), and online gaming. The data for this research is collected through paper-based survey from one of the biggest and earliest internet addiction clinics in china. Around 594 young clients who is in-patients (means whose age around 17.76y) take part in this study. Structural equation model has been used in analyzing the data. The result of this research paper indicates that IAD symptoms was positively and significantly correlated

with ICI, online gaming and academic performance decrement. Moreover, ICI also have a positive impact on online gaming and Online gaming also significantly correlated with academic decrement. However, there is no relationship found between ICI and academic performance decrement. It has been suggested to increase the research sample size. (Jiang, 2013)

Determine the gaming motivations, avatar-self-identification and symptoms of online game addiction. Symptom of GAD: Problems and Salience and Symptom of GAD: Uncontrollable Play has been used as the dependent variable and Motivation to Relax, Motivation to Socialize, Motivation to Escape, Motivation to Achieve are used as the dependent Variable. Avatar-self-identification was used as a mediator. The data was gathered from 217 respondents belonging to two public universities in Hong Kong. A second path model have been used to test relationships. Result shows avatar-self-identification was positively related to the two symptoms of online game addiction, suggesting that the more people recognize with the avatars, the more acceptably they would hurt from problems generated by online gaming. The motivation to relax has positive relation with avatar-self-identification. It was also importantly linked to uncontrollable play, but not to issues and salience. Players' motivation to socialize has positive relation with avatar-self-identification, issues/salience as well as an inability to control playing time, showing both important direct and indirect influences of the social motivation on online game addiction. The relationship between the motivation of escapism and avatar-self-identification was not important, and not linked between escapism and uncontrollable play. However, escapism was found to be importantly linked with issues and salience. Lastly, the motivation to achieve was not positively linked with perception of avatar-self-identification, but it was importantly linked with problems and salience. (Zhong & Yao, 2013).

The purpose of this paper is to determine the impact of dispositional optimism, loneliness to the well-being of a divorced, widowed and married persons. The independent variable of the research is marital status (divorced, widowed and married), while Loneliness and Optimism used as a mediator and the dependent variable is Well-being. The data was collected from 196 men and women using convenience sample in which 54% were women and 46% were men. Statistical model was used to predict the result. The finding of the research shows that both mediator have a significant relation with Well-being. (Zur, 2012)

Determine Seeking Security or Growth: A Regulatory Focus Perspective on Motivations in Romantic Relationships. In Study 1, Partner perceptions and conflict resolution behaviors were used as the dependent variables. Promotion and prevention focus motivation were used the independent variables. In Study 2, Romantic partners' actions has been used as the dependent variable and Regulatory focus orientations has been used as the independent variable. In Study 3, Emotional responses has been used as the dependent variable and People's chronic regulatory focus has been used as the independent variable. In Study 4, Promotion-type emotions and prevention-type emotions were used as the dependent variables and Interpersonal events has been used as the independent variable. In Study 1, the data was gathered from 148 dating couples belonging to the large Southwestern University. In Study 2, the data was collected from Seventy-seven undergraduate students belonging to the West Coast University. In Study 3, the data was gathered from 172 undergraduate students belonging to the Midwestern University. In Study 4, the data was assembled from 94 undergraduate students belonging to the West Coast University. In Study 1, APIM have been used to analyze relationships. In Study 2, 3 and 4 MANOVA have been used to test the relationships. (Winterheld, and Simpson, 2011)

Examine Positive Social Support, Negative Social Exchanges, and Suicidal Behavior in College Students. Suicidal Behavior has been used as the dependent variable. Positive Social Support, Tangible Support and Negative Social Exchanges were used as the independent variables. The data was collected from 439 undergraduate students. Bivariate correlations have been used to analyze the relationships. Result shows that there is significant relation of emotional, informational, and tangible support with suicidal thoughts and behaviors, although there is significant positive association of negative social exchanges with suicidal thoughts and behaviors. There is significant negative relation of increasing age with informational and tangible support. It has been suggested that nonstop conservation of many types of support may be a significant element in the declining of suicide risk. (Hirsch and Barton, 2011)

The objective of this research paper is to produce the data about the group of addicted online video gamers. Internet addiction, non-substance addiction, Psychosocial health, Latent class analysis, Video game addiction, Compulsive internet use are the variables of this research. Stratified sampling was used to select the school for the longitudinal study. The study was conducted on a secondary schoolchild aged from (13to16) in Netherland. Weekly hours of online gaming, psychosocial variables, and compulsive use of internet scale were used to analyze the data. Latent class analysis was executed. The result shows that 3% addicted online gamers only exists in which 1.5% are children aged (13to16) years with obviously relationships with problems and less psychosocial health. (J. Rooij et al., 2010)

Determine Problematic internet use and psychosocial well-being among MMO players. Problematic Internet Use has been used as the dependent variable and Participant amount of Internet use, Social Uses, Psychological well-being, Aggression, Deriving sense of community from face

to face relationships, and Deriving a sense of community from online relationships, Motivations for game play and Immersion Motivation are used as the independent variables. The data was gathered from 7129 players. Hierarchical Multiple Regression Analysis have been used to analyze relationships. Result shows Participant amount of Internet use have a positive relation with Problematic Internet Use, Interpersonal Uses have a positive relation with Problematic Internet Use, Psychological well-being have a positive relation with Problematic Internet Use, Aggression have a significant positive relation with Problematic Internet Use, Deriving sense of community from face to face relationships have a negative relation with Problematic Internet Use and Deriving a sense of community from online relationships have a significant positive relation with Problematic Internet Use. (Caplan et al., 2009)

Seek to identify Internet Addiction and Interpersonal Problems in Korean Adolescents. Internet Addiction and Interpersonal Problems were the variables. The information was gathered from 676 students belonging to the middle school in the Gang Buk area, Northern area of the Han River in Seoul, Korea. SPSS-PC (version 11.0 for Windows; SPSS, Chicago, IL) have been used to analyze the relationships. Outcome showed significant relation of General user and Potential risk groups, significant relation of general user and high-risk groups and positive relationship between potential risk and high-risk groups. There was no significant relation of differences in hours spent with family and communication time with family. It has been suggested first, it is important to create sound and broad societal and free time activities for young person. Second, successful advice sessions for school caregiver to provide to Internet-addicted young people need to be generated. Third, social skills training should be implemented for Internet- addicted young people. Lastly, we should plan how we can make better interaction inside our recent education environment. (Seo, Kang, and Yom, 2009)

Caplan, S., Williams, D. and Yee, N. (2009) determine Problematic internet use and psychosocial well-being among MMO players. Problematic Internet Use has been used as the dependent variable and Participant amount of Internet use, Social Uses, Psychological well-being, Aggression, deriving sense of community from face to face relationships, and Deriving a sense of community from online relationships, Motivations for game play and Immersion Motivation are used as the independent variables. The data was gathered from 7129 players. Hierarchical Multiple Regression Analysis have been used to analyze relationships. Result shows Participant amount of Internet use have a positive relation with Problematic Internet Use, Interpersonal Uses have a positive relation with Problematic Internet Use, Psychological well-being have a positive relation with Problematic Internet Use, Aggression have a significant positive relation with Problematic Internet Use, Deriving sense of community from face to face relationships have a negative relation with Problematic Internet Use and Deriving a sense of community from online relationships have a significant positive relation with Problematic Internet Use.

Ci-Rong Li, Chun-Xuan Li, Chen-Ju Lin (2018) examine how and when team regulatory focus influences team innovation and member creativity. Dependent Variables include individual creativity and team innovation, Mediator is team perspective taking and employee information elaboration, and Moderator is team bureaucracy. Team Promotion Focus, Team Prevention Focus are independent variables. The data was collected from 56 R&D teams belonging to two multinational high-tech organizations which headquarters are in Taiwan. Multilevel analysis has been used to analyze relationships. Result shows Team promotion focus has significant relation with employee information elaboration, Team prevention focus has significant relation with employee information elaboration, Team promotion focus has significant relation with team perspective taking, Team perspective taking has significant relation with team innovation, Team

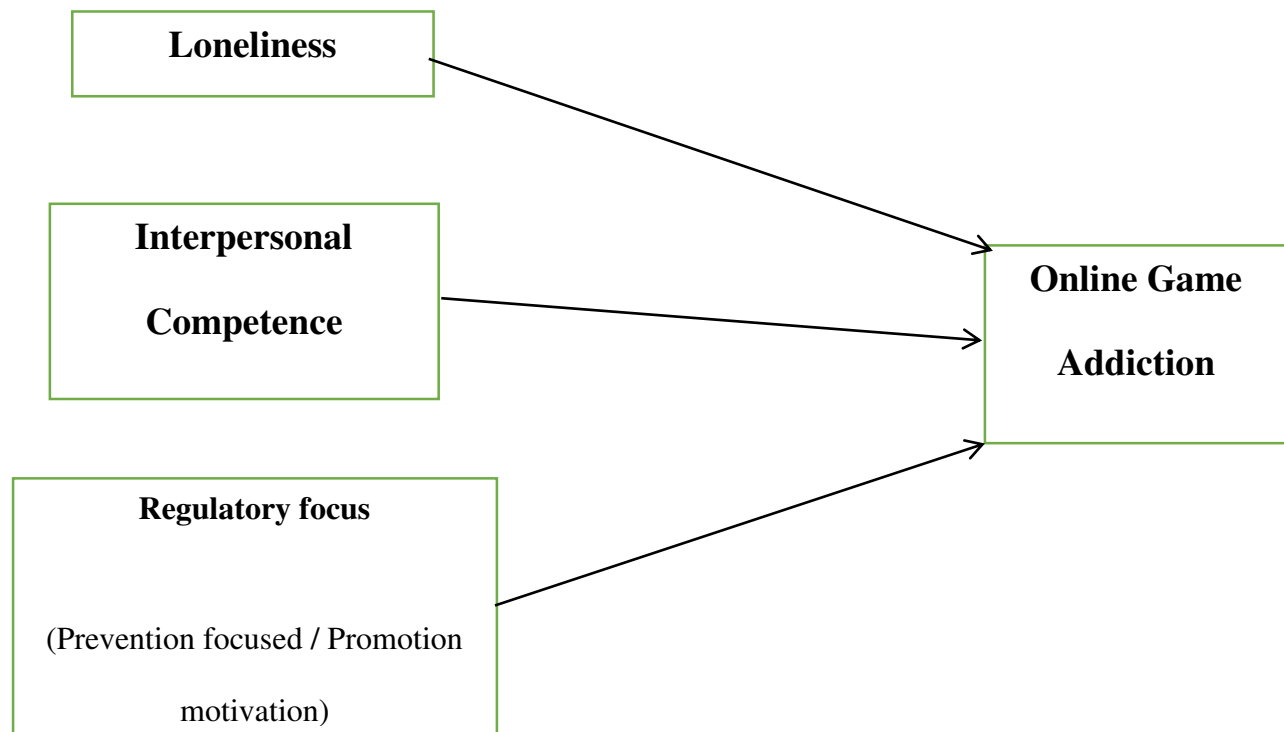
prevention focus has significant relation with team perspective taking, Moderating effect of team promotion focus on member creativity along employee information elaboration vary as a result of centralized team structure. It has been suggested to managers that to encourage a team promotion focus by producing a decentralized factor. Furthermore, they make a team factors distinguished by greatly decentralized policy making which can release the advantages of team promotion focus to ease team perspective taking and team innovation.

In this research determined the compulsive behavior in online game addiction and also investigate the deep mental involvement in game addiction by the applying two intellectual concept such as presence and flow. In this experiment shows the connection among the presence, flow, and online game addiction which is used as variable, although, the data was collected from Korean college student through the survey questionnaire, analyze data throughout statistical scale. The result indicates that there is significantly relationship between presence and entertainment, on the other hand, in insignificantly relationship flow and online game addiction. (Sung, Park, and Sung, 2009)

Determine Problematic Usage Among Highly-Engaged Players of Massively Multiplayer Online Role Playing Games. The Variables Are Problematic Usage, Amount of time played and Personality characteristics of agreeableness, conscientiousness, neuroticism, and extraversion. The data was gathered from 204 respondents who were players of World of Warcraft and belongs to one of the top online guilds. Result shows point for every respondent, with greater points showing further problematic behaviors, were then related including every of the five personality traits and demographic attributes. Five important relations were not completed: a moderate negative relation with agreeableness, a moderate positive relation with neuroticism, a moderate positive relation with

the number of hours played per week, a low negative relation with extraversion and a low negative relation with conscientiousness. It has been recommended that examinations for therapeutic interventions for people who fronting dreadful issues in their lives. So far, clinics are running in other states for electronic game “addiction.” Investigation like this could help determine people at great risk for digital gaming problematic usage. Moreover, taking into account some of the ordinary personality traits of people who fronting problematic usage may help produce better intercession than just removing them from access to the game. For Example, it may be useful to acknowledge people on facing strategies to handle with avoidance in social atmosphere. (Peters, C.S. and Malesky, and Jr 2008)

2.3 Conceptual Model



2.4 Hypothesis:

H1: Inter-personal Competence has a significant impact on online game addiction

H2: Loneliness has a significant impact on online game addiction

H3: Regulatory Focus has a significant impact on online game addiction

Chapter # 3

Methodology

3.1 Research Purpose

There are three types of Research purpose that are Exploratory, Descriptive and Explanatory. Exploratory research is a research carried for an issue that is clearly not has been considered. Descriptive research is a research technique that explain the qualities of the population or phenomenon being considered. Explanatory Research is a research whose main objective is to explain how and why events happen to make, elaborate, enhance or test theory. In this study Explanatory Research Purpose is used because we give the answers of how and why (Raza et al., 2018).

3.2 Research Approach

There are three main research approaches that are Quantitative, Qualitative and Pragmatic approach to research. Quantitative research approach is used to form theories or hypothesis or to test the theory or hypothesis by gathering the data through questionnaire and converting it into numerical forms so that statistical calculations can be made and can infer. Qualitative research approach is used to collect non-numerical data. Pragmatic research approach uses the technique which is most relevant for the kind of research to be carried. In this study Quantitative research is used because we collect the data through questionnaire (Raza et al., 2019) and convert it into numerical form so that we can perform statistical calculations.

3.3 Research Design

Research design explain the kind of study, research question, and hypothesis and find out the relation among variables and the method of gathering data. In this study correlational research

design is used which represents that if relationship exist between the variables or not. We followed the study of Raza et al. (2020).

3.4 Sampling Technique

In this study convenience sampling technique is used because we collected the data from those students who were accessible at the time of research.

3.5 Target Audience/Population

In this study convenience sampling technique is used because we gather data easily through questionnaire.

3.6 Sample Size

The collected data sample size for this study is 500 respondents.

3.7 Statistical Technique

In this study Smart PLS-SEM software has been used to test the hypothesis (Raza et al., 2020). This test applies on the following data which includes reliability analysis, factor analysis and regression line. Factor analysis is an interdependent approach which means it has no link with dependent and independent variables in it because it only explain the relationship between variables. Factor analysis reduces the rated collected data having different attributes to few important dimensions on the basis of similarities among the attributes. In short, Factor analysis takes attributes which have same properties in one dimension. The rating that a single element is

collect partially is because of the reaction of other element. There are many fields such as marketing, psychology, physical science and many other where factor analysis widely used.

The second technique apply in this study is regression analysis which also explain the relationship between variables but it is a dependence technique. It explains how a dependent variable changes interchange because of change is one or more independent variables (Raza et al., 2020). If the study has more than one Independent variable, then the regression technique is called multiply regression technique. This research paper is also consisting of more than one independent variable so then multiply regression technique is used in this.

The last technique used in this research is Reliability which is used to measure the extent to which instrument used to collect the data is reliable. The purpose of reliability test is to get consistent finding for the data collected. Data reliability has been proved by applying statistical tests of reliability (Raza et al., 2018).

3.8 Questionnaire and Measurement Instrument

The data is collected through questionnaire which was formed on a 5-point Likert scale from strongly disagree (1) to strongly agree (5). The Questionnaire's validity was done by the field professionals. The questionnaire was adopted from previous researches. The items of Loneliness were adopted from Bozoglan et al., (2013). The items of Regulatory Focus were adopted from Lockwood et al., (2002). The items of Interpersonal Competence were adopted from Factor Model Coefficients of the Interpersonal Competence Questionnaire (ICQ), Buhrmester (1998). The items of Online Game Addiction were adopted from Principal component analysis and internal consistency of the Korean version of the Internet Addiction Test, Lee K et al., (2013).

3.9 Ethical consideration

To follow the appropriate pattern of research guideline research ethics is extremely important for a researcher. The ethical aspect of research guideline which used in this research paper is to give enough time to the respondent of the study so that they can read and understand the research questionnaire completely and shares their true views about the question. In addition, the responses of the respondent will be preserve strictly to secure privacy of their data because the common issue that many of the respondent face before sharing their personal information and views for the research is the disclosure of their identity so it is clearly clarify that the respondent identity is only disclose if they give their permission whereas if they are not willing to disclose their identity then their information will be save as followed by the ethical aspects of research.

Chapter # 4

Data Analysis and Results

Data Analysis:

For analyzing the research model PLS-SEM has been used (Qazi et al., 2020).

4.1.1 Demographic Profile

Table 1: Respondent's profile (N=500)

Demographic items	Frequency	Percentile
Age		
18-25	341	68.2%
26-30	108	89.8%
31-35	39	97.6%
36-45	12	100.0%
Education		
Matric	45	9.0%
Intermediate	68	13.0%
Undergraduate	167	33.4%
Graduate	189	37.8%
Other	31	6.2%
Gender		
Male	305	61.0%
Female	195	39.0%

Source: Author estimations

Demographic profile is available in the Table, As we can see from age section 68.2% (341) respondents were from 18-25, 21.6% (108) were from 26-30, 7.8% (39) were from 31-35, and only 2.4% (12) were from 36-45 while from the education section 9.0% (45) respondents were from matric, 13.6% (68) were from intermediate, 33.4% (167) were from undergraduate, 37.8% (189) were from graduate and others were 6.2% (31), As far as sexual orientation 61% (305) were male respondents while the 39.0% (195) were female respondents.

Table 2: Reliability Statistics

Construct	Cronbachs α	Items
IC	0.657	10
Loneliness	0.641	5
OGA	0.835	5
RF	0.709	5

Notes: IC = Interpersonal Competence, L= Loneliness, OGA=Online Game Addiction and RF= Regulatory Focus

Reliability analysis is shown in the Table, the closer the reliability gets to 1.0 of Cronbachs Alpha their reliability would be better according to the Uma Sekaran(2003). The Cronbachs Alpha should be more than 0.55 according to Fiddell and Tabachnick (2007). The overall reliability of loaded items is 0.96 which is 96% which means it is reliable.

IC is the first variable, has 10 items and the value of Alpha is 0.657, The second variable Loneliness, has 5 items and the value of alpha is 0.641, the third variable which we are having is OGA and it has also 5 items while its alpha value is 0.835 and last variable is RF with 5 items and the value of alpha is 0.709. Thus All are having more than 0.55 alpha which ensures the reliability of data

Table 3: Factor Analysis

.As we used here the principle component method to acquire the rotated components matrix as well as rotation matrix (Verimax). Furthermore, the factors were carrying accounted for in the table. The persistently item were 25 and altogether, however, 4 variables were made. All factors have loaded

Constructs	IC	Loneliness	OGA	RF
I.C1	0.824			
I.C2	0.799			
I.C3	0.709			
I.C4	0.777			
I.C5	0.923			
I.C6	0.871			
I.C7	0.901			
I.C8	0.855			
I.C9	0.930			
I.C10	0.721			
Loneliness1		0.774		
Loneliness2		0.744		
Loneliness3		0.940		
Loneliness4		0.815		
Loneliness5		0.918		
O.G.A1			0.790	
O.G.A2			0.959	
O.G.A3			0.796	
O.G.A4			0.982	
O.G.A5			0.835	
R.F1				0.822
R.F2				0.783
R.F3				0.774
R.F4				0.716
R.F5				0.732

Notes: IC = Interpersonal Competence, L= Loneliness, OGA=Online Game Addiction and RF= Regulatory Focus

to accounted for in the table and also established in the table that all variables are loaded in their relevant construct and it is presenting that all 4 variables have a high correlation with their particular variables as the value is greater than or equal to 0.7.

Regression Model

Explication of Regression Analysis then insert the table of Regression analysis.

Table-4 Regression Analysis					
Hypothesis	Regression Path	Effect type	B-Coefficients	P Values	Remarks
H1	IC -> OGA	Direct effect	0.463	0.000	Supported
H2	Loneliness -> OGA	Direct effect	0.182	0.001	Supported
H3	RF -> OGA	Direct effect	0.236	0.349	Not Supported

Notes: IC = Interpersonal Competence, L= Loneliness, OGA=Online Game Addiction and RF= Regulatory Focus

Discussion:

Following the factor analysis, the variables are determining to run the regression analysis (Qazi et al., 2020). Here is the shown that the variable interpersonal competence, and loneliness have positive impact as well as significant impact on online game addiction. On the other hand, regulatory focus has positive impact but insignificant relation on online game addiction, However, consequence of regression analysis is reported in table, --- The first hypothesis regarding the effect of interpersonal competence on online game addiction shows the positive and significant relationship ($\beta = 0.463$, $p < 0.01$) hence the hypothesis is accepted, the second hypothesis regarding the effect of loneliness on online game addiction shows the positive and significant relationship (β

= 0.182, $p < 0.01$) hence the hypothesis is accepted and the third hypothesis regarding the effect of regulatory focus on online game addiction shows the positive and insignificant relationship ($\beta = 0.236$, $p > 0.1$) hence the hypothesis is rejected. The studies which supported that relationship includes Shih (2007), Lee (2006) and contrast with the study of Lee et al. (2011). The result implies that the Interpersonal competence and loneliness is the basic requirement of the online game addiction.

Chapter # 5

Conclusion & Recommendations

5.1 Conclusion

The objective of this research was to determine the impact of Loneliness, Regulatory focus and Interpersonal competence on online game addiction in Karachi. The data was gathered from 500 respondents aged between 18 to 45 and who were addict of online games. Statistical Packages for Social Sciences (SPSS) has been used to analyze the relations. The independent variables were Loneliness, Regulatory Focus and Interpersonal Competence. The dependent variable was online game addiction. Questionnaire's reliability was analyzed by the reliability analysis. The Chronbach's Alpha of Interpersonal Competences was 0.657 and it shows that the items were consistent, the Chronbach's Alpha of Loneliness was 0.641 and it shows that the items were consistent, the Chronbach's Alpha of Regulatory Focus was 0.709 and it shows that the items were consistent and the Chronbach's Alpha of Online Game Addiction was 0.835 and it shows that the items were consistent. The Regression Analysis showed that the Interpersonal Competence has positive and significant impact on Online game addiction ($B=0.463$, $p<0.01$) hence the hypothesis is accepted, the Loneliness has positive and significant impact on Online game addiction ($B=0.182$, $p<0.01$) hence the hypothesis is accepted, the Regulatory focus has positive and insignificant impact on Online game addiction ($B=0.236$, $p>0.1$) hence the hypothesis is rejected.

5.2 Managerial implications / Policy Makers / Recommendations

This study is beneficial for psychologists and psychiatrists who is dealing with the patient of depression due to Online game addiction because psychologist and psychiatrists usually have limited time and they also do not intend to spend money on such time of research for their patients so it will directly help for both of them (psychologists and psychiatrists) in understanding the attitude of those patient who are depress because of online game habit. Moreover, the research is also beneficial for future researcher who is interested in conducting a research in this topic. It is also beneficial for those who is related to this field and it is often useful for the parents whose child behavior is start changing just because of online addiction habit so it help those parent to take immediate step to save their children from this type of addiction. In addition, this research is also beneficial for game developers because its help them to make those game which didn't make a person game addictive.

5.3 Future Recommendations

In this study, we have limited our sudy to Karachi, future researchers can conduct it to different cities and countries, furthermore we have collected data from 500 respondents, researchers can increase sample size. We have only used Loneliness, Regulatory Focus and Interpersonal Competence as variables, researchers can determine the impact of other variables on online game addiction and researchers can also implement different methodologies.

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Appendix

Survey Questionnaire

Dear Respondent,

This survey is conducted for writing a thesis as part of BBA - Honors. The purpose of this survey is to determine the predictors of game addiction based on Loneliness, Motivation, and Interpersonal competence. We will appreciate if you could complete the following table. Any information obtained with this study that can be identified with you will remain confidential.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Demographics

1) Age

- a. 18-25
- b. 26-30
- c. 31-35
- d. 36-45

2) Education

- a. Matric
- b. Intermediate
- c. Undergraduate
- d. Graduate
- e. Other

3) Gender

- a. Male
- b. Female

S.NO	Questions <u>Loneliness</u>	1	2	3	4	5
1	I am unhappy doing so many things alone.					
2	I am no longer close to anyone.					
3	I feel isolated from others.					
4	My social relationships are superficial.					
5	I can find companionship when I want it.					

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S.NO	Questions <u>Regulatory focus</u>	1	2	3	4	5
1	In general, I am focused on preventing negative events in my life.					
2	I frequently think about how I can prevent failures in my life.					
3	In general, I am focused on achieving positive outcomes in my life.					
4	I often imagine myself experiencing good things that I hope will happen to me.					
5	I see myself as someone who is primarily striving to reach my “ideal self”—to fulfill my hopes, wishes, and aspirations.					
<p>Ref: Lockwood, P. (2002). Could it happen to you? Predicting the impact of downward comparisons on the self. <i>Journal of Personality and Social Psychology</i>, 82, 343–358.</p>						

S.NO	Question <u>Interpersonal competence</u>	1	2	3	4	5
	<u>Initiation</u>					
1	I ask or suggest to someone new that get together and do something, e.g., go out together					
2	I am an interesting and enjoyable person to be with when I first get to know people.					
Ref: Buhrmester, D., Shaver, P., Furman, W., & Willems, T. (1982, August). Social skills and relationship development during a life transition. Pa- per presented at the 90th Annual Con						

S.NO	Question <u>Negative Assertion</u>	1	2	3	4	5
1	I tell a companion I don't like a certain way he or she has					
2	I confront my close companion when he or she has broken a promise.					

Ref: Buhrmester, D., Shaver, P., Furman, W., & Willems, T. (1982, August). Social skills and relationship development during a life transition. Pa- per presented at the 90th Annual Con

S.NO	Question <u>Disclosure</u>	1	2	3	4	5
1	I reveal something intimate about myself while talking with someone I am just getting to know.					
2	I tell a close companion about the things that secretly make me feel anxious or afraid.					

Ref: Buhrmester, D., Shaver, P., Furman, W., & Willems, T. (1982, August). Social skills and relationship development during a life transition. Pa- per presented at the 90th Annual Con

S.NO	Question <u>Emotional Support</u>	1	2	3	4	5
1	I help a close companion work through his or her thoughts and feelings about a major life decision, e.g., a career choice					
2	I help a close companion get to the heart of a problem he or she is experiencing.					

Ref: Buhrmester, D., Shaver, P., Furman, W., & Willems, T. (1982, August). Social skills and relationship development during a life transition. Pa- per presented at the 90th Annual Con

S.NO	Question <u>Conflict Management</u>	1	2	3	4	5
1	I admit that I might be wrong when a disagreement with a close companion begins to build into a serious fight.					
2	I work through a specific problem with a companion without resort to global accusations (“you always do that”)					

Ref: Buhrmester, D., Shaver, P., Furman, W., & Willems, T. (1982, August). Social skills and relationship development during a life transition. Pa- per presented at the 90th Annual Con

S.NO	Question <u>Online Game Addiction</u>	1	2	3	4	5
1	I stay online longer.					
2	I try to hide how long I have been on-line.					
3	I form new relationships on internet.					
4	I surfed internet before something else.					

5	I feel preoccupied with the internet when off-line.					
Ref: Korea Internet & Security Agency. 2009 survey on the internet usage of foreign residents in Korea. Seoul: KISA; 2010						