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THE ROLE OF MOTIVATION FOR ONLINE GAMING ON EMOTIONAL STATES OF YOUNG ADULTS

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Abstract: *This research proposes to understand the role of online gaming motivation on the emotional state of young adults. Online gaming is a growing phenomenon that has garnered the attention of people from various age groups. It has been reported that young adults have engaged in online gaming to a significant extent. Negative emotions due to online gaming have been linked with the manifestation of symptoms of anxiety, depression, and isolation in gamers. On the other hand, a growing research section has also highlighted the positive effect of online gaming on individuals. Motivation for online gaming has explored in researches, this research attempted to check the association of online gaming and emotional state, and to also test if motivation for online gaming can predict positive and negative affect. The other objective of the study was to understand gender differences on emotional state and motivation due to online gaming. A survey was conducted with the individuals who fall into the age category of 18 to 24 and engage in online gaming. The data collected was then analyzed descriptively and inferentially through the support of SPSS, to find out the level of correlation between motivation and emotional affect and to check gender differences. The results showed that there was a significant negative correlation between motivation and negative affect, no correlation between motivation and positive affect, and there was no significant difference in emotional states between genders.*

Online gaming has become a common activity that has garnered engagement from a lot of people in India. Specifically, young adults in the country have shown a lot of interest and commitment toward online gaming, it has become of the most popular activities amongst this population.

As per a report by Inc24, the number of online gamers in India

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3 IGNOU

is predicted to reach 657 million users in 2025. A report by Dentsu reported that 46 percent of gamers in India are women the overall Real Money Game revenues constitute for 57 percent of the market.

Online gaming is a leisure activity that has both negative and positive effects on individuals. In India, there have been rampant cases of gaming addiction. Young adults have been reported to have run away, shown aggressive behavior, suicidal attempts, and even hospitalization. In current times there are numerous games as well as different platforms for such games, the players also experience a range of emotions through this engagement. Online games garner an abundance of engagement from young adults because they satisfy certain needs or motives of these players. (Malone, Reeper, 1987).

In recent times a number of online games have entered the consumer market, they all have distinct characteristics and serve a different purpose. Broadly these games have been put into several broad categories. According to a report by Statista, in India, young adults have reported to engage mostly in first Shooter Games, Multiplayer Online Games and Role-Playing Games.

Before the pandemic, the Indian online gambling market was experiencing rapid expansion. However, COVID-19, along with the ensuing lockdowns and WFH models, provided a turning point in how online casual gaming has emerged as a major channel, both in terms of the game base (420 million in FY21) and the revenue contribution to the gaming industry (INR 60 bn of the INR 136 bn in FY21).

According to KPMG, the gaming market in India is segmented into four main categories: casual gaming, real money games, online fantasy sports, and e-sports.

According to a survey , India has one of the lowest average revenue per user (ARPU) rates in the world in fiscal year 2021 with 433 million gamers. In December 2020, Indonesia, a poor country with substantially fewer gamers (100–120 million), had an ARPU of $10–$20.

In December 2020, the ARPU in developed economies like

China, which had 630–650 million gamers, was $60–70, and it was around $200–220 in the U.S., which had 180–200 million players.

In Guwhati University, the psychology department conducted a research study on the prevalence of online gaming. This research aimed to find the abundance of online gaming amongst teenagers and to explore the nature of its relationship with various emotional and behavior-related problems. A total of 415 participants have selected from the middle school (grade 8 to grade 10) then the researchers assessed the participants on the Strengths and Difficulty Questionnaire, Online Gaming Addiction scale, and Short Self-regulation. The result of the study showed that 53.8 percent of respondents felt unable to take responsibility, 66.5 percent of respondents showed defensive and irritable behavior when asked to stop the game, and 60.9 percent of respondents had isolated themselves from friends and peers to play online games. More than half of the respondents showed high level of irritation. (Abhijeet Singh, Arif Ali, Maria Choudhury,2022).

A study from Southwest University in China classified the gaming motivational styles of male teenagers using an individual-centred approach and tracked how these motivations related to psychosocial effects over time. According to the participant's basic level of motivation and their perception of themselves, the researchers made three broad categories, "recreational", "achiever", and "escaper", these categories were based on the Nick Yee Model of Online Gaming Motivation. 729 participants filled up a follow-up questionnaire after a gap of one year. The analysis by the researchers found that the achievers and escapers category of players was found to be more likely to have social withdrawal than recreational players. The Escapers category was also found to be more prone to experience anxiety or depression symptoms and scored higher for self-destructive problems compared to another category of players. This research concluded that the escapers were the only category that had the tendency to develop anxiety and depression syndrome. (Wang, Li, Chen, Chai, Zhang, 2019).

A study was done by Heidi Francis in 2021, the researcher chose respondents that belonged to two categories; frequent players and non-frequent players. The hypothesis was that frequent players are expected to have more motivation and positive emotional response then less frequent players. The sample size consisted of 69 participants that played online games and engaged in such platforms, they were recruited from colleges and universities. To measure the emotional responses, PANAS was administered in both categories, following up the players also filled up Situational Motivational Scale (SIMS), this scale gave the motivation index of each respondent. The results of this study accepted the hypothesis that frequent game players will have more motivation to play and have a significant positive emotional response in gaming with competitive elements than non-frequent gamers.

The study "The Ideal Self at Play: The Appeal of Video Games That Let You Be All You Can Be" by Andrew K. Pryzbylski and Richard M. Ryan was done in 2011. Researchers discovered that when players' impressions of themselves during play were consistent with players' ideal selves, video games were most intrinsically motivating and had the biggest impact on emotions. They also discovered that the relationship between intrinsic motivation and the feeling of ideal-self traits during play was amplified by high levels of immersion in gaming settings and significant differences between players' actual-self and ideal-self characteristics. The researchers selected three games that tested spatial, lexical skills, and cognitive skills, additionally, the games also demanded use of creative imagination, self esteem, and logical thinking. They divided their studies into two parts, in study 1 participant were administered the Ten Item Personality Inventory to measure which personality trait from the Big Five Model was applicable to them. Motivation to play online games was scored by applying the Intrinsic Motivation Inventory and the emotional state of the participants was assessed by using the Positive and Negative Affect Schedule (PANAS). The analysis indicated that the games that brought the ideal self-characteristic was found to be more intrinsically motivating to the players, the analysis also

indicated that games that were intrinsically motivating resulted in a positive affect amongst participants. The researchers extended their study by conducting Study 2, they attempted to re-evaluate the relationship between ideal self and post-game affect as well as ideal self and motivation. In study two they selected 970 gamers; the participants were administered with the same measures of scale as used in study 1. The results of Study 2 showed that convergence of the ideal self with the game self predicted high intrinsic motivation and reduced negative affect in participants.

The research "Restorative Magical Adventure or Warcrack? Motivated MMO Play and the Pleasures and Perils of Online Experience" done by Jeffrey G. Snodgrass (2012) explored the motivations behind massively multiplayer online (MMO) gaming and the potential benefits and risks of online gaming experiences. The researchers discussed how MMO gaming can serve as a restorative and magical adventure, providing opportunities for social interaction and personal growth, but also highlighting the potential for addiction and negative consequences. They investigate the applicability of Yee's three-factor motivational framework for explaining the favourable or unfavourable nature of experiences in the well-known online game World of Warcraft (2004–2012) using ethnographic interviews and a survey. The researchers also conducted virtual or in-person interviews with WoW players using voice over internet protocols or "real life" (IRL) (to use our respondents' abbreviation) methods. Thirty of these interviews focused on the relationships between players' motives and both positive and unfavourable experiences in World of Warcraft using three different methodologies. Through their own guilds and play networks as well as interview requests from individuals linked with nearby gaming organisations and centres, they sampled their network from the original respondents. To ensure accuracy and consistency, interviews were digitally recorded, transcribed, and separately coded for similar themes by two people. ATLAS.ti (2002–2012), a programme for managing and analysing qualitative data, was used to handle coded transcripts. They also conducted a web survey, each survey respondent was asked to rate the significance of each of Yee's (2007) 10 subcomponent motives to

their game-play on a 5-point Likert-type scale. In addition, participants were asked to rate how much they felt "addicted" to the game and how much they thought playing WoW boosted their pleasure and life satisfaction while decreasing or adding to their stress levels. Additionally, the survey had questions adapted from Young's widely used Internet Addiction Test to gauge participants' World of Warcraft addiction. The results of the study showed that despite the pleasant and maybe therapeutic effects of playing World of Warcraft, the interviews and personal experiences of researchers show that players abuse the game. The reasons why players choose to play WoW are related to whether the game has any negative impacts. In particular, the motivation to achieve is most strongly connected with patterns of negative WoW play, according to our overall qualitative assessment of our interview data. The qualitative analysis inferred that Yee's (2007) three main motivations—accomplishment, social interaction, and immersion—that were strongly associated with positive gaming experiences. The structured analysis of interview material, using Atlas-ti, revealed similar patterns, again pointing especially to the potentially negative dimensions of Achievement play. Achievement was consistently correlated with more frequent mentions of upsetting types of play. Additionally, social and immersion play were more frequently assessed favourably, with immersion play receiving the highest ratings in these interview settings despite being the least frequently reported motivator. These interview results received confirmation from the survey analysis.

OBJECTIVES

1. To understand the relationship between motivation for online gaming and emotional state of young adults.
2. To understand the gender differences in the emotional state due to online gaming.

HYPOTHESES

$H_{a:}$ Positive Affect will be a function of motivation.

$H_{a:}$ Negative Affect will be a function of motivation.

$H_{a:}$ There will be gender differences in positive, negative affect and motivation.

METHODOLOGY

Participants

The data was collected from 101 participants, out of whom 52 participants were males and 49 were females. The age of the participants varied from 18 to 24 years. 89 participants were pursuing graduation and 18 were pursuing post-graduation. The mean age of the participants 21.

Table 1 Demographic details of the participants. (N=101)

Demographic Details	Gender		Education Qualification	
	Male	Female	Graduation	Post Graduation
	52	49	89	18

Research Design

A type of research strategy used to study the link between two or more variables is corelation research design.The goal of this design is to measure two or more variables and then ascertain if they are connected in any way.There could be no relationship at all, a relationship that is positive and the variables increase or fall together, or a relationship that is negative and the variables rise while the other variables decrease.The correlation research approach does not include determining mining causality or changing any variables.It places more emphasis hasis on identifying and describing how different variables connect to one another. Psychologist, (John W. Creswell,2009) defines this research design as "Correlational research involves the measurement of two or more relevant variables and an assessment of the relationship between or among those variables". The goal is to describe the relationship and to identify factors that may contribute to that relationship."

Variables

Independent Variable: Motivation for Online Gaming

Dependent Variable: Positive and Negative Affect

Measure used

The Situational Motivation Scale was used to assess the participants' motivation level. The Positive and Negative Affect Schedule was administered to check the participants' emotional state.

The dimensions of intrinsic motivation, identified regulation, external regulation, and amotivation were all assessed using the Situational Motivation Scale (SIMS; Guay, Vallerand, & Blanchard, 2000). During the development of the scale, five studies were carried out. The Situational Motivation Scale consists of 16 items, each of which is scored on a 7-point Likert scale with a range of 1 to 7 (exactly correlates).

In this study, the scale was found to be reliable (16 items, á= , 80).

Read each item carefully. Using the scale below, please select the number that best describes the reason why you are currently engaged in this activity. Answer each item according to the following scale:

1: corresponds not at all;

2: corresponds very little;

3: corresponds a little;

4: corresponds moderately;

5: corresponds enough;

6: corresponds a lot;

7: corresponds exactly.

The Positive and Negative Affect Schedule is a self-report measure that is made up of two mood scales, one measuring positive affect and the other measuring negative affect. It was constructed by Watson, Clark and Tellegan in 1988. It has 20 items, 10 items measuring positive affect and 10 items measuring negative affect. Each item is rated on a 5 point Likert scale, ranging from 1

(very slightly) to 5 (extremely). The total score is calculated by finding the sum of the 10 positive items, and then the 10 negative items. Scores range from 10 – 50 for both sets of items. For the total positive score, a higher score indicates more of a positive affect. For the total negative score, a lower score indicates less of a negative affect.

In this study the scale was found to be reliable (20 items, á= . 81).

Instructions :

Read each item carefully. Using the scale below, please select the number that best indicates the extent you have felt this way over the past week. Answer each item according to the following scale:

1: Very Slightly or not at all,

2: a little,

3: moderately,

4: quite a bit,

5: extremely.

Procedure

The participants for the research were assigned through purposive and snowball sampling, individuals between the age of 18 to 24 were approached and asked if they engaged in online gaming. For the people who engaged in online gaming, their consent was taken and only the ones who were willing were provided with the questionnaire, they were informed that their responses were for the aim of research work and their confidentiality would be maintained. The participants took 10 to 15 minutes to complete the questionnaire. The researcher was on standby to resolve any queries and paid attention while the forms were being filled. After collecting the data the participants were asked to leave and were shown gratitude for their participation. The data collected was then subjected for analysis. Descriptive and inferential analyses were conducted on the collected data.

Statistical Method

After collection of data descriptive and inferential analysis were conducted. Independent sample t-test was done to check gender differences in males and females on all three variables. Correlation was conducted to see the nature of association between motivation and positive and negative affect. Further linear regression analysis was also conducted to see the impact of motivation on positive and negative affect.

Results

Table 2 Independent sample t-test for means between males and females in situation motivation, positive affect and negative affect.

	Female		Male		*t*-value	*p*
	M	SD	M	SD		
Situation Motivation Index	11.12	14.07	12.39	16.35	.41	.68
Positive Affect	32.65	7.27	32.94	7.46	.19	.84
Negative Affect	22.84	6.79	23.88	7.79	.70	.48

In the above table, for the variable, situation motivation, the t (96) = .41, p> .05, thus there is no significant difference between males and females for situation motivation. The positive affect variable has, t (96) = .19, p>.05, showing no significant difference. Similarly, the negative affect variable has, t (96) = .70, p>.05, showing that there is no significant difference between males and females.

Table 3 Descriptives Statistics and Correlations for Situation Motivation, Positive Affect and Negative Affect.

Variables	N	*M*	*SD*	1	2	3
1. Situational Motivation	100	13.36	15.17			
2.Positive Affect	100	32.63	7.30			
3.Negative Affect	100	23.52	7.26	-.32**		

**p<.01

In the above table, it can be inferred that the correlation between Situational Motivation Index and Negative Affect is significant at .01, r(101) = -.321, p< .001. this shows a moderate negative correlation between situation motivation and negative affect.

Table 4 Regression Coefficients of Positive Affect and Negative Affect on Situation Motivation

Variable	B	SE	â	*t*	*p*	R^2	Ä R^2	*F*(1,99)
Positive Affect	32.49	.91	.03	35.52	.73	.001	.009	.11
Negative Affect	25.27	.86	.32	29.37	.001	.10	.09	11.41***

Note. The predictor here was Situation Motivation

The above table shows the impact situation motivation on negative affect and positive affect. In the case of positive affect, situation motivation has non significant effect on positive affect (â = .03, $p>.05$). in the case of negative affect, the R^2 value of .10 revealed that the predictor explained 10 percent variance in outcome variable with $F(1,99) = 11.41$, $p<.001$.

Discussion

The aim of the study was to explore the relationship between motivation for online gaming and the emotional affects of young adults. The sample consisted of 101 participants, 52 male, and 49 females, aged between 18 to 24. The average time spent by the participants in online gaming was 1.5 hours in a day. A questionnaire consisting of the Situational Motivation Scale and the Positive and Negative Affect was given to the participants. It took them around 10 to 15 minutes to fill out the questionnaire. To conduct the data analysis, both descriptive and inferential statistics were implied. Independent sample t-test was conducted to analyse gender differences, correlation between situation motivation, positive affect, and negative affect was conducted. Further linear regression analysis was also used to test the statistical hypothesis of the study. The results of the study showed that there were no significant differences between males and females for all three variables. The results indicated that there was no significant relationship between situation motivation and positive affect. There was found to be a significant negative correlation between situation motivation and negative affect. Further the analysis also indicated, that the impact of situation motivation on positive affect was insignificant. The predictor, situational motivation explained a 10 percent variance in negative affect $F(1,99) = 11.41$, $p<.001$.

Online gaming has become a growing and rapid phenomenon in India, a report conducted by the All India Gaming Federation (AIGF) found that the 18–24 age range made up the largest segment of Indian online gamers, with 65% of them being under the age of 24. Online gaming has various genres. Engagement in online gaming has resulted in players experiencing both positive and negative emotions. There have been several researches that have explored the effect of online gaming on positive and negative emotions. Similarly finding the motivation for online gaming has also been an area of interest for researchers. Through this study, an attempt was made to understand the role of motivation on positive and negative emotions of young adults who engage in online gaming.

The first objective of the study was to understand the relationship between motivation for online gaming and the emotional states of young adults. The correlation between situational motivation and positive affect was insignificant. Further regression analysis also revealed to an insignificant impact of motivation on positive affect. Thus we reject the alternate hypothesis stating that positive affect is a function of situation motivation.

Engagement in online gaming has resulted in individuals experiencing low positive emotions. In the research, "Restorative Magical Adventure or Warcrack? Motivated MMO Play and the Pleasures and Perils of Online Experience" done by Jeffrey G. Snodgrass (2012), results of the study showed that despite the pleasant and maybe therapeutic effects of playing World of Warcraft, the interviews and personal experiences of researchers show that players abuse the game. The reasons why players choose to play WoW are related to whether or not the game has any negative impacts. In particular, the motivation to achieve was most strongly connected with patterns of negative WoW play, according to their overall qualitative assessment of their interview data.

Similarly, another research work done with the aim of exploring problematic behaviour due to the online game, the result of the study showed that respondents felt unable to take

responsibility, showed defensive and irritable behavior when asked to stop the game, respondents had also isolated themselves from friends and peers to play online games. More than half of the respondents showed high level of irritation. (Abhijeet Singh, Arif Ali, Maria Choudhury,2022).

Gaming disorder (GD), also known as Internet GD (IGD), is defined by the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), as a persistent and recurrent pattern of playing digital or video games (both online and offline), which results in clinically significant distress or impairment.

Prior studies have examined the relationship between the pursuit and achievement of certain life goals and the relatively immediate satisfaction of basic needs, which enhances well-being (Ryan, Sheldon, Kasser, & Deci, 1996). In contrast, the pursuit and achievement of other goals does not support and may even undermine the satisfaction of basic needs, which results in ill-being.

The results of this study also indicated that motivation and negative affect were negatively correlated. We accept the second hypothesis as the regression analysis further showed that situation motivation had a significant impact on negative emotions. This indicates that if the motivation for online gaming in individuals is high then the negative affect will be low and vis a vis. This is also indicated that the participants showed a significant negative affect.

The expectancy-value theory given by Atkinson suggested that motivation is determined by an individual's expectation of success. It further suggests that positive emotions can lead to increased motivation whereas negative emotions can lead to decreased motivation by reducing the expectation of success.

It has been also found that if intrinsic motivation is high then negative emotions will be low. The study "The Ideal Self at Play: The Appeal of Video Games That Let You Be All You Can Be" by Andrew K. Pryzbylski and Richard M. Ryan (2011), The results of this study showed that convergence of the ideal self with the game self-predicted high intrinsic motivation and reduced negative affect in participants.

Researches have also shown that unhealthy gaming can have and impact on well being and facilitate loneliness (Lemmen and Peter,2014) . The result of this study indicated that three components, social competence, self-esteem, and loneliness are predictors of unhealthy online gaming in time frame of six months and later. Thus, they argue that lessening psychosocial well-being among adolescent gamers can be seen as a precursor to unhealthy gaming. Loneliness was a result of pathological gaming, according to the analysis of this study. This finding implies that compulsive video game use may damage existing relationships by replacing real-world social connections, which could account for the rise in adolescents' sentiments of loneliness.

Another objective of the study was to understand the gender differences in the emotional state as well as motivation for online gaming. The analysis of the data indicated that there were no significant differences between male and female participants in the study. A reason for this could be that online gaming platforms provide engagement to both males and females, the more contemporary online games include features like customizing characters, that are aimed at both male and female audiences. The newer online games focus on providing an online gaming experience to both males and females instead of making the platform biased towards just one specific gender. Making gaming a gender-neutral experience has been the new target of many online games. The popular multiplayer game, Fortnite gained a lot of praise and attention from gamers as it did not have the feature where players could choose the gender of their avatar.

A quantitative approach was chosen for this study, in such cases exploration of the topic is often not done in depth. A qualitative approach would have provided the study with personal insights of the respondents and could have helped in exploring the variables of the study in more depth.

Purposive sampling was chosen as a sampling technique, such sampling techniques have the disadvantage of generalizing the findings of the study on another sample.

CONCLUSION

This aimed at checking the role of motivation for online gaming on emotional states. A sample of 101 participants was drawn through purposive and snowball sampling. The participants were between the age group of 18 to 24 representing the age criteria for young adults. An association between motivation for online gaming and positive and negative affect was established. Further, the result also showed that motivation is a predictor of negative affect. In this case the participants showed more negative affective as compared to positive affect. There were no gender differences found in the three variables, motivation, positive affect, and negative affect. The results of the study support the literature that online gaming can inculcate negative affectivity in gamers.

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