

Online Gaming in Pakistan: Demographic Characteristics and Gaming Preferences.

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ABSTRACT

Online gaming has become very popular all over the world. This area of research is yet to be explored in Pakistan. The aim of the present article is to highlight the demographic characteristics of online gamers in Pakistan and to investigate their gaming preferences. A questionnaire was developed to access these variables in a sample of (N=357). The result indicated that middle adolescents are the main costumer of online games. 59% online gamers secured B grade in their respective classes. Facebook games were the most popular online games played by the participants. Females and males online gamers have different gaming preferences. The findings support the western literature on online gaming. The study will provide base for future researches on online gaming in Pakistan.

Key Words: Online Gaming, Gaming Preferences, Demographic Characteristics, Social Network Games, Massively Multiplayer Online Games, Academic Achievement.

1. INTRODUCTION

Online gaming is a favorite game enjoyed all around the world. It has become so popular ever since the advancement of technology. People play many types of online games. A lot of research has been carried out in this domain on its causes and consequences, gaming behavior and gaming preferences in the western world.

The present research is carried out to identify various demographic characteristics and gaming preferences of online gaming players in Pakistan. In Pakistan online gaming is admired by youth and is very prevalent. But there is not any research available about this widespread playing activity. The present research will help to pave the surface for future researchers in this area.

Online Gaming is basically a mode of playing video games on internet i.e., causal browser games/ social network games and multiplayer online gaming are all modes of playing video games (Rooij, 2011). Causal browser games are played online on social networking websites or other remote server for example *Farmville* on Facebook. Causal browser games can be played alone or with other players. Järvinen (2009) defined social Network Games (SNG) is a subtype of causal browser games that are available on social network sites. The features of these games are similar to online multiplayer games. Social network games are one of the most famous played games around the world. \$98 million have been put into these games in the year 2010 (Shin, & Shin, 2011).

Multiplayer online gaming is the most famous mode of playing video games. The game that enable this mode of playing is known as massively multiplayer online game (MMO). These games are played in virtual gaming environments. These gaming environments are complex and immersive. These virtual environments provide many interactivities to engage in (Ryan, Rigby, & Przybylski, 2006). People irrespective of their race, gender, location and age can join these gaming environments to play multiplayer games. Multiplayer online games are played online with other gamers from different location on gaming server. The players interact with one another to compete and win the game. MMO players grouped together to accomplish gaming tasks. These groups are called "guilds". Players of multiplayer games (MMO) interact with their old gaming friends on daily basis for long period of time to accomplish game goals. They also seek new relationships. In these games interaction among players is very necessary to succeed in the game. Forming new relations and maintaining existing one is a necessary mean to an end. Sometimes this mean becomes an end in itself (Caplan, Williams, & Yee 2009). These interactions among player in carried out by instant messaging, voice chat, and group-wide text channels on the computer screen.

Some online multiplayer games are played in temporary gaming environment where the game is finished as soon as the player leaves the game. While other multiplayer games are played in never-ending gaming world in which the gaming world continues to exist even when the player leaves the game. These games are called massively multiplayer online role playing games (MMORPG). MMORPG are computer role –playing games played in virtual environment. In

these games millions of players interact with each other from all over the world (Billieux, et al., 2013).

2. MATERIAL AND METHOD

2.1 Objectives

Following are the objectives of the present research:

1. To study the phenomenon of online gaming among Pakistani adolescents and young adults.
2. To explore the gaming preferences, mode of playing multiplayer games, location of playing games of adolescents and young adults.
3. To explore the demographic variables (age, gender, education, academic achievement, time of internet use, purpose of internet use, outdoor playing, time of playing and type of game) of online gamers.

2.2 Hypothesis

No specific hypotheses were anticipated as it was an exploratory research on gaming preferences and demographic characteristics of online gamers.

2.3 Material

A questionnaire intended to access the demographic variables, time of playing online games, mode of playing the games, location of playing online games and gaming preferences was developed. The questionnaire was administered to (N=30) participants to check the language comprehension. Participants were instructed to write their comments at the end of questionnaire to improve it. Further it was also analyzed by three experts to check the language comprehension and questions structure (appendix A).

2.4 Design/ Statistics

A cross sectional research was used. SPSS was used to analyse gaming preferences, gender differences and for calculating mean and standard deviation. Microsoft excel was used to build graphs.

2.5 Participants

The sample of the present study consisted of adolescents and young adults who play online multiplayer games. Total sample was consisted of 357 participants, male (83.5%) and female (16.5%). Age range was from 11 to 23 years ($M=16.8$ and $SD=3.13$).

2.6 Procedure

The questionnaire was administered to (N=30) participants. All participants were able to understand the questionnaire. Some participants were

reluctant to write their email and home address. So it was removed from the questionnaire after discussing with experts. The data was collected from different schools, colleges and universities of Islamabad and Rawalpindi, Pakistan by using the purposeful sampling technique. The inclusion criteria for the study was to play online games on regular basis and age range between 11 to 23 years old. Informed consent was taken from the willing participants and data was collected. They were appreciated for their participation.

3. RESULTS

Table 1 illustrates (Appendix) demographic description of the sample participated in the present research. Results indicated that majority of the participants (39.5%) are in their middle adolescence, then late adolescence (23.5%), followed by young adults (23%) and less participants are in early adolescence (14%). Gender wise, male (83.5%) outnumber females (16.5%) in the sample. Majority of the participants are from secondary class (38.1%) that is 9th and 10th, then from graduation (18.7%) that is (M.Sc. or equivalent degree/university students), then higher secondary(14.4%) that is 11th and 12th class, then undergraduates(14.2%) that is 13th and 14th class and last is primary and elementary (14%) that is 5th to 8th class. 59% students have B grade, 32.6% students have A grade while only 7.7% have C and 6% have D grade. 55.5% participants were from government education system while 44.5% participants were from private education system. 145 participants (44.2%) father was a government employee, 69 participants (21%) father was a private employee and 94 participants (28.7%) father was businessman. 84.3% participant mother was house wife as compared to 14% participants whose mother was working

Table 2 indicated (Appendix) that 43.8% participants have good computer and 56.2% have normal computer. Good computer category has computer model that are capable of playing modern online multiplayer games. All core- i models of computer were categorized as good computer. Whereas other personal computers that do not have advance hardware are labeled as normal computers. 96.3% participants have internet access. 50% participants use DSL internet, 41% use wireless and 7.2% use LAN server. 50% participants play games for 1 to 3 hour, 31% play games for less than 1 hour, 12% play for 3 to 6 hour and 3.9% participants play games for more than 10 hour consecutively. 80.4% participants play online multiplayer games at home while 10% play online games outside home. 78.4% participants play games on computer while 5% play

only on console and 16% play on computer and console both. 76.1% participants also play outdoor games as cricket, football while 30% do not play outdoor games.

3.1 Online gaming Preferences

To analyze gaming preferences a bar chart was formulated. Figure 1 (Appendix) showed the online gaming preferences according to the type of online games. It showed that Facebook games are most played games, then Massively multilayer games, then first person shooter games, followed by other social network games than Facebook, then sports games, Massively Multiplayer online roleplaying games (MMORPG) and then adventurous online games.

3.2 Gender Differences in Online Gaming Preferences

To analyze the gender differences in online gaming types a bar chart was formulated. The figure 2 (Appendix) showed that males outnumber females all types of games. Furthermore it was also revealed that females played Facebook games and other social network games more than all the other types of the online games.

4. DISCUSSION

It was found out that the most played online games are Facebook games (SNGs) like *Farmville*, *Cityville*, *Candycrush*, *Fruitninja*. The second most played online games are massively multiplayer online games (MMO) followed by first person shooter games (FPS). These three modes of playing online games i.e., social networking games (SNG), massively multiplayer games (MMO) and first person shooter games (FPS) are all played in non-persistent virtual worlds as compared to massively multiplayer online role playing games (MMORPG) that are played in persistent virtual worlds. There is little empirical research available on why some online games are more popular than others. Ryan et al., (2006) argued that those online games will be more popular that will offer increased perception of competence, autonomy and relatedness. The research also revealed that MMO games provide more autonomy and competence thus increasing players' motivation and enjoyment in the game.

First person shooter (FPS) is type of online multiplayer games (MMO) in which the player shoots enemies in a virtual battlefield from a first-person perspective. These games are famous because of their

potential to offer rich competition and social interaction with other players (Xu, Cao, Sellen, Herbrich, & Graepel, 2011). Another study carried out on first person shooter games (FPS) games and *World of Warcraft* also revealed similar results that the main motivational force of first person shooter games (FPS) is social interaction in games by communication and cooperation with other players (Frostling-Henningsson, 2009). The study also stated that first person shooter games are popular because they offer people to engage in killing behavior without any legal consequences as in real life. The popularity of these killing games can be indicator of aggressive and violent tendencies in adolescents. These games are categorized as violent video games. Violent video games are considered as increasing aggressiveness and violent acts in adolescents. These games are popular from last 20 years (Travers, 2008).

The popularity of Facebook games is also reported in western studies. These games are played most because they require less time, less effort, minimum internet speed, and can be played on cell phone, computer and other handheld devices. A study reported that 38% people use mobile phone, 20% use gaming console and 10% use tablet to play social network games. People have reported that their time of play and frequency of gaming has been increased (PopCap Games Social Gaming Research, 2011). Studies have reported that these games are the most popular games played around the world (Shin, & Shin, 2011). Another research (Chen, 2010) revealed that social network games are the top application of social network services (as cited in Shin & Shin, 2011). Another reason for the popularity of these games is that they do not require downloading and buying as other complex online games. These games are free to play. These games do not involve real-time competition or interaction rather the players can enter into the gaming world at any time in the day. These games also fulfill the need of social interaction as they require other people to play the same game for achieving high scores (Shin & Shin, 2011).

Facebook social network games are famous more than other social network service games like *MySpace* games. Research highlighted that 91% people go on Facebook for playing social network games as compared to other websites like *Google*, *MySpace* and *Bebo* (PopCap Games Social Gaming Research, 2011). The reason could be the popularity and high usage of Facebook. Nowadays Facebook active users have exceeded from 1.19 billion. It has 727 million daily active users (Facebook, 2013). A survey conducted by Express Tribune revealed that there are 8,648,000 monthly active users in Pakistan,

majority are young people and 70% of them are males and above all that Facebook is the number one website outranking the Google (Tribune, 2013). The reasons of playing social network games reported in the studies were fun and excitement, competition and stress relief. 57% people said that they play social network games because it is fun and exciting, 43% people said that they play games for competition and 42% said that they play games to relief stress (PopCap Games Social Gaming Research, 2011).

In western culture massively multiplayer online role playing games MMORPG are most widely played games. In the present research this type of games are least played. There are many reasons for this difference in results. Firstly in the present research data was collected through purposive sampling technique from school, colleges, universities and gaming zones of Islamabad and Rawalpindi only. Probably true gamers were not accessible through this data collection technique. There is an increasing number of individuals playing online games from numerous Pakistani gaming servers. These all gamers were not accessible in present research because data was not collected online from gaming server. Researchers conducted in west mostly applied online data collection technique. Secondly, for playing MMORPG games good computer system is required along with internet speed which is not accessible to all adolescence and young adults in Pakistan. Adolescents have no economic freedom rather they are dependent on their parents for financial support in Pakistan as compared to western adolescents. Participants in the present research are adolescents (77%) and young adults (23%) belonging to middle socioeconomic status as revealed by their father (44.2% government job, 21% private job) and mother occupation (84.3% house wife, 14% working). Participants are students of government schools (55.5% government sector) that have little access to modern technology. Majority of the participants have normal computer model, other than core-I model, (56.2%). Furthermore majority of the participants' online games playing time is one to three hours (49.9%) and less than one hour (31%). Playing MMORPG games requires a lot of playing time, good computer system, good internet speed, and autonomy which is not present in the current sample because of their demographic variables.

Results revealed significant differences in gaming preferences across gender. Males played all types of games more than the females. Researches have supported the notion that being a male exposed the person to develop problematic gaming (Caplan et al., 2009). All studies conducted on online games up till now reported greater male participants as compared

to female participants. These results confirm the stereotype that online gaming is a male entertainment activity. Females in the sample were found to play Facebook games more than all other types of games. All other social network games were also played more by females as compared to other games. This suggests that females prefer social network games (SNG) on other types of games. Research has highlighted this gaming preference among gender. Study reported that 58% females played social network games as compared to 42% males in 2011 (PopCap Games Social Gaming Research, 2011). Another research elaborated the differences in gaming preferences as although male adolescents are the main consumer of video games but by the introduction of casual browser and puzzle games; females' gamers have also increased (King, Delfabbro, & Griffiths, 2010).

The research suggests that game developers should develop games that can be played in small time and are easy to play as depicted by the game preferences and they should focus on developing social network games and massively multiplayer games rather than adventure games.

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Appendix A

Table 1: Demographic Characteristics of Sample

| Demographics | Frequency | % | <i>M</i> | <i>SD</i> |
|---------------------------------|-----------|------|----------|-----------|
| Age in years | | | 16.8 | 3.13 |
| Early Adolescents (11-13 yrs.) | 50 | 14 | | |
| Middle Adolescents (14- 16yrs.) | 141 | 39.5 | | |
| Late Adolescents (17-19 yrs.) | 84 | 23.5 | | |
| Young Adults (20-23 yr.) | 82 | 23 | | |
| Gender | | | | |
| Male | 298 | 83.5 | | |
| Female | 59 | 16.5 | | |

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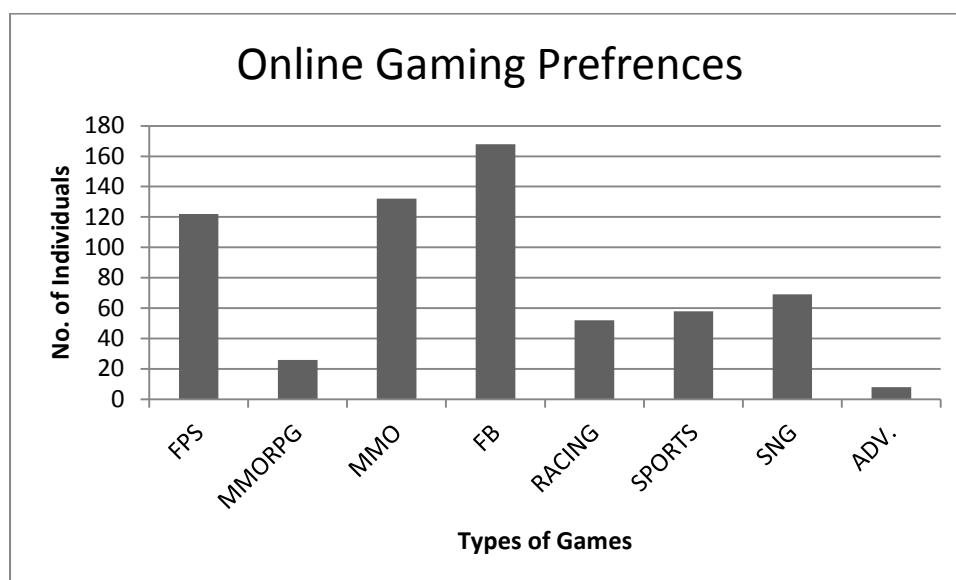
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| | | |
|--|-----|-------|
| Class | | |
| Primary and Elementary (5 th to 8 th) | 50 | 14 |
| Secondary (9 th , 10 th) | 136 | 38.1 |
| Higher Secondary (11 th , 12 th) | 51 | 14.4 |
| Under Graduates (13 th , 14 th) | 50 | 14.2 |
| Graduates (15 th , 16 th) | 66 | 18.7 |
| Self- Reported Academic Achievement | | |
| Grade A (>80%) | 106 | 32.6 |
| Grade B (60-79%) | 192 | 59.1 |
| Grade C (40-59%) | 25 | 7.7 |
| Grade D (<40%) | 2 | .6 |
| Education System | | |
| Private Sector | 157 | 44.5 |
| Government Sector | 196 | 55.5 |
| Father Occupation | | |
| Private | 69 | 21 |
| Government | 145 | 44.2 |
| Business | 94 | 28.7 |
| Mother Occupation | | |
| House wife | 301 | 84.3% |
| Working | 50 | 14% |

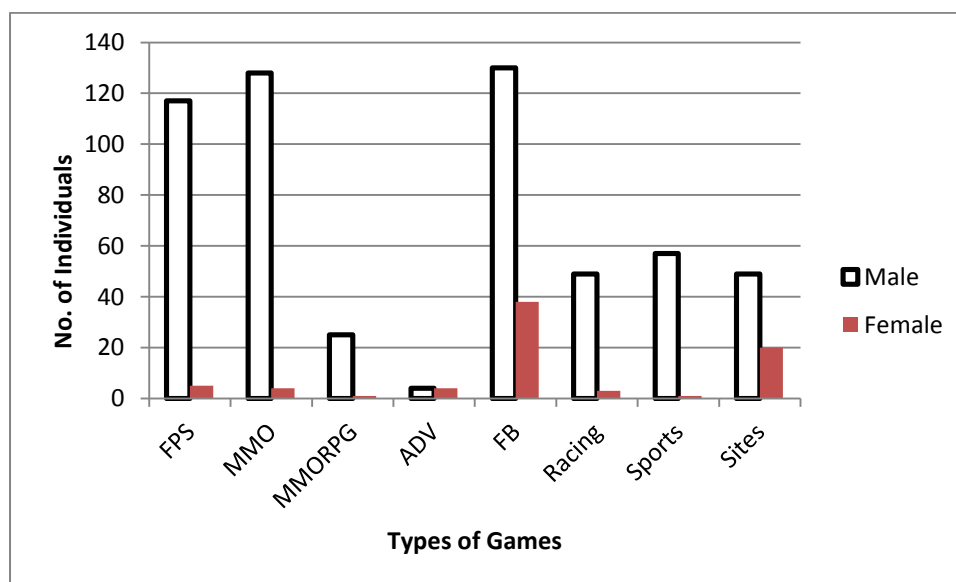
Table 2: Gaming related Demographics of Sample

| Demographics | <i>f</i> | % |
|------------------------|----------|------|
| Computer Model | | |
| Good | 1 | 43.8 |
| Normal | 48 | 56.2 |
| | 1 | |
| | 90 | |
| Internet Access | | |
| Yes | 3 | 96.3 |
| No | 43 | 3.7 |
| | 1 | |
| | 3 | |
| Type of Internet | | |
| Wireless | 1 | 41.6 |
| DSL | 39 | 50.9 |
| LAN | 1 | 7.2 |
| Both | 70 | .3 |
| | 2 | |
| | 4 | |
| | 1 | |
| Time of playing game | | |
| Less than 1 hour | 1 | 31.4 |
| Between 1 and 3 hour | 12 | 49.9 |
| Between 3 and 6 hour | 1 | 12 |
| Between 6 and Ten hour | 78 | 2.8 |
| More than 10 Hour | 4 | 3.9 |
| | 3 | |
| | 1 | |
| | 0 | |
| | 1 | |
| | 4 | |
| Play games | | |
| At home | 2 | 80.4 |
| Outside home | 87 | 10.6 |
| | 3 | |
| | 8 | |
| Play games | | |
| On computer | 2 | 78.4 |
| Console | 80 | 5 |
| Both | 1 | 16 |
| | 8 | |
| | 5 | |
| | 7 | |
| Play outdoor games | | |
| Yes | 2 | 76.1 |
| No | 67 | 23.9 |
| | 8 | |
| | 4 | |



Note: FPS stands for first person shooter games, MMORGP stands for massively multiplayer online role playing games, FB stands for Facebook games, SNG stands for social network games, ADV. Stands for adventure games. Bar represents no. of participants playing the game type.

Figure 1. Online Gaming Preferences According to Online Game types.



Note: FPS stands for first person shooter games, MMORGP stands for massively multiplayer online role playing games, FB stands for Facebook games, SNG stands for social network games, ADV. Stands for adventure games.

Figure 2. Gender Differences in Online Gaming Preferences.