

Modeling Social Network Gaming Habitual Behavior Among Young Consumers. A Uses and Gratification and Flow Perspective

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Abstract

The present study has attempted to identify the relationship between hedonic and utilitarian gratification with social network gaming habitual behavior while considering the mediating role of flow experience as well. Online questionnaire was distributed using convenience sampling technique to collect 493 valid responses from young gaming consumers in Pakistan. The collected data was analyzed by executing Pearson correlation and structural equation modelling tests through SPSS 22 and SmartPLS 3.0 software. Results of data analysis confirmed the proposed hypotheses of this research. Overall, hedonic and utilitarian gratification have moderately positive and significant association with social network gaming habitual behavior and flow experience was identified to partially mediate the relationship among proposed variables of the study.

Keywords: *Hedonic gratification, utilitarian gratification, uses and gratification theory, flow experience, social network gaming habitual behavior.*

The electronic gaming industry has been flourishing in the modern age of digitalization. In terms of revenue generation, this industry has managed to surpass even film industry and now it is ranked among best leisure sources all over the world (Yoo & Singh, 2016). With more than 50% of gaming consumers giving preference to electronic games over movies or music, it can be notified that different forms of entertainment are being replaced by electronic games (Frederik & Jan, 2015). Electronic gaming can be perceived in almost everything stretching from advertisements to computers as well as cell phones. Gaming consumers, all across the globe, are able to engage themselves in classic adventures and interact with other players through gigantic 3D virtual worlds while expecting to become heroes of the story and fantasizing to save the world again and again (Saqib et al., 2019). In response to latest user trends, rapid improvement in online social networking technologies can be observed in recent times. Networking technologies synchronized with social network services (SNSs) are being consumed and dispersed worldwide (Chen, Lu, & Wang, 2016).

In the modern society, besides the rising fame of social network services (SNSs), social network games (SNGs) are also wide spreading. Social network games may be explained as online games which are associated to or distributed through social network services (Wei et al., 2017). Most of these games have asynchronous game mechanisms and multiplayer capacity. Few popular social network games, for example, Farm Ville and City Ville have succeeded in drawing attention of almost 10 million consumers from different parts of the world. Convenience, ease of access and entertainment are few dominant factors that

have contributed towards acceptance of social network games. Since these games are free to play, it becomes very challenging for game developers and marketers to sustain their revenue models by acquiring and retaining massive consumer base. Considering social network games in particular, customer retention is a big concern for the social network gaming service providers since consumers can very easily switch to another social network game if they are not satisfied (Huang, Bao, & Li, 2017). This may be attributed to insufficiency of information about important factors that can play significant role, directly or indirectly, in order to retain large pool of consumers in gaming context.

Advertising and selling value added features within the game are two most predominant ways to generate revenue for any social network game, hence retention of consumers is very essential for survival among abundance and diversity of social network games (Xu, Turel, & Yuan, 2012). Understanding consumer preferences and motivations for game consumption becomes vital when the significance and increasing revenues of social network gaming industry are taken into consideration. Even though habit has been pondered as long standing motivation to play, research exploring dynamics behind video gaming habit remains scarce and it becomes even more limited from the perspective of social network gaming in particular (Huang, Bao, & Li, 2017).

Quite a few studies have identified major gaps in consumer behavior literature pertaining to social network gaming that need to be filled in order to come up with productive knowledge about retaining active SNG consumers and engaging them for a longer period of time. Primarily, the question that what are the factors that play important role in social network gaming habitual behavior formation has been unaddressed to a great extent and must be answered appropriately since prolonged consumption of a social network game is attributed to habitual behavior (Wittek et al., 2016; Ramírez-Correa et al., 2019). Furthermore, considering contribution towards theory of uses and gratification, role played by utilitarian and hedonic gratification still needs to be examined thoroughly from social network gaming perspective, predominantly underlining gaming behavior, not intention to play (Kaimann, Stroh-Maraun, & Cox, 2018). Therefore, consideration of both emotional and subjective assessments by social network gaming consumers becomes indispensable. In recent times, flow experience has been considered from the perspective of information technologies and it has been endorsed as beneficial to understand consumer behavior as well. As flow experience specifies “the holistic sensations that people feel when they act with total involvement” (Csikszentmihalyi, 1977), this conception is anticipated to play key role primarily in users’ perception of social-centric services such as the present study in SNG context. By and large, investigation is still required to comprehend how to construct sustainable flow experience particularly in social network games (Baabdullah, 2018).

To improve understanding about factors contributing towards formation of social network gaming habitual behavior, the present study has suggested that hedonic gratification and utilitarian gratification must be taken into consideration concurrently with mediating role of flow experience that too in an emerging economy with dominant South Asian cultural background, something prominently unnoticed in gaming literature. In compliance with the outcomes of the previous studies and the above mentioned gap analysis, the present study has endeavored to answer the following research questions:

1. To what extent hedonic gratification and utilitarian gratification affect social network gaming habitual behavior?
2. To what extent flow experience mediates the relationship between hedonic gratification, utilitarian gratification and social network gaming habitual behavior?

The present study has considered role of both emotional as well as functional factors that may directly affect social network gaming habitual behavior. Additionally, this study has endeavored to investigate whether or not their direct influence is enhanced through mediating role of flow experience. There is scant evidence in literature of empirical work on hedonic gratification, utilitarian gratification and social network gaming habitual behavior with flow experience as mediator. The findings could provide effective answer to the question that what determines habitual behavior of young consumers towards social network games, which may assist SNG service providers to retain large pool of consumers for prolonged duration. The present study has contributed towards existing body of knowledge pertaining to the theory of uses and gratification and flow theory precisely from the perspective of social network gaming, in an attempt to provide theoretical foundation based on empirical evidence for future researches. From practitioners' perspective, the present study provides suggestions regarding important elements and strategies based on preferences of SNGs players that can be considered by SNGs service providers for developing SNGs in a highly competitive marketplace.

Literature Review

Social Network Gaming Habitual behavior

Habit is generally characterized as mental construct which is based on automaticity irrespective of prior behavior and self-recognition frequency. Triandis (1980) has defined habit as "situation-behavior sequences that are or have become automatic and the individual is usually not conscious of these sequences". Some prominent characteristics of habitual behavior include: (i) As a particular type of behavior is performed on regular basis, there is strong possibility that such behavior will eventually become habitual as habits depict

history of repetition (ii) Habitual behavior is a kind of automaticity and from the viewpoint of a particular objective, certain cues will trigger such type of behavior (Verplanken & Aarts, 1999). Few main attributes of habitual behavior include lack of awareness, efficiency, identity and uncontrollability. Furthermore, habitual behavior is often perceived as an approach to minimize cognitive efforts during information processing. Habit of media usage has been recognized as most important motivation for media consumption behaviors. Media habit has been conceptualized as “individuals falling into a pattern of repeated media behavior without active self-observation” (Diddi & LaRose, 2006). Habitual behavior pertaining to media consumption results in extending duration of experience and paying more attention towards specific media (Wu et al., 2018). Media habitual behavior is considered as positive, effortless and controlled while resulting in minimal information processing by the individuals.

A large number of prior studies focusing on the theory of uses and gratification have primarily overlooked importance of media consumption habitual behavior (Wu et al., 2018). The theory of uses and gratification is somewhat sophisticated in a way that consumers may be having not as much of thoughtful access to progressive order intellectual process which is expected to shape their behavior. This perception clearly implies that media consumption is related to unconscious minds of consumers that is habit. In several contexts, habit has been recognized as forecaster of behavioral intention as well as behavior (Limayem et al., 2007). Similarly, not a lot of studies have attempted to consider habitual behavior in social gaming context. Since, it is assumed that habitual behavior has interaction effect with gratifications, it can be anticipated that this association is effective in social network gaming context as well.

Uses and Gratification theory

The implications of uses and gratification theory are significant to understand usage patterns of social network game players as well as motives behind social network gaming. Uses and gratification theory proposes that consumers make use of a particular platform to satisfy needs and wants. The entire gaming process is actively influenced by gaming consumers as they have potential of diversifying play choices and defining consumption experiences within the game (Wei & Lu, 2014). Previous studies in the domain of Information System (IS) have depicted that individuals have particular motivations and outcomes in consuming internet systems (De Grove, Cauberghe, & Van Looy, 2014). The theory of uses and gratification helps to understand how a person makes choice for social media platform consumption in order to satisfy the needs and wants. Few studies have elaborated on two major types of outcomes on the basis of consumption of information systems namely; hedonic gratification and utilitarian gratification (Sherry, Lucas, Greenberg, & Lachlan, 2006).

The present research has focused on studying habitual gaming behavior of young consumers in social networking context. Individual's gratifications, as elaborated by uses and gratification theory, have been considered to examine the impact that motivates young consumers to keep playing a particular social network game. This theory has been applied in various cultures by marketing scholars (Ifinedo, 2016; Kaimann, Stroh-Maraun, & Cox, 2018), but rarely in South Asian culture such as Pakistan. Therefore, in the present research, the facets of the theory of uses and gratification namely hedonic gratification and utilitarian gratification have been considered among social network gaming consumers from Pakistan. The exclusive outcomes of this research may contribute towards the hitherto scarce gaming literature. The study has attempted to nourish the relevant literature, by generating outcomes on the basis of social network games utilization and gaming habits among the Pakistani consumers.

Hedonic Gratification

Hedonic factors stimulate consumption patterns of individuals in many emotional and imaginary responses forms (Li et al., 2015). Considering this standpoint, enjoyment is a part of emotional responses whereas escapism and fantasy are part of imaginary responses. While playing a game, the features of hedonic gratification are experienced by players, for example, they perceive enjoyment. Marketing researchers have examined several facets of hedonic gratification, among individuals keen to play online games, across diversified contexts (Xu, Turel, & Yuan, 2012). Some players may desire to live in world of imagination and fantasy while few players may want to escape from harsh realities of real life, thus encouraging them to play social network games repeatedly.

Social network games are often expected to provide hedonic features such as enjoyment, fantasy and escapism to their consumers, to encourage playing games repeatedly (Harviainen, & Rapp, 2018). Gaming consumers often perceive enjoyment while interacting with other players over social gaming platforms. Few studies have identified that players often get excited and enjoy while playing the social network games and interacting with others as well (Harviainen, & Rapp, 2018). Escapism is a type of hedonic behavior, which means that the individuals engage in the gaming activities, in order to escape from the realities (Xu, Turel, & Yuan, 2012). Another significant aspect that has been recognized as fundamental motivator for the gaming consumers is fantasy. Within game setting, players are able to fantasize what they desire internally (Li et al., 2015). They can fulfil their desires and create a whole new world of imagination that is not possible in real life environment.

Studies have revealed that consumers embrace different social media habits to satisfy hedonic needs (Gan & Li, 2018). The play activities, indulge the players and provide them with hedonic gratification and experience. Moreover, players experience sophisticated levels of fantasy while playing social network games (Gan & Li, 2018). All the types of the hedonic gratifications such as enjoyment, escapism and fantasy generate a desire to play the game over and over again. Such elements engage the consumers by fulfilling their desires while developing their habit towards the game. Therefore, it is hypothesized that:

H₁: Hedonic Gratification (HG) has a relationship with Social Network Gaming Habitual Behavior (SNGH).

Utilitarian Gratification

Utilitarian Gratification is considered as task-oriented approach. Researchers in the domain of information systems have acknowledged significant role of utilitarian factors in order to enhance user experience over social networking websites. Review of prior literature depicts that utilitarian gratification is an impactful predictor of social network services usage behavior. Similarly, while playing any social network game, users are often determined to win rewards, improve self-image, gain authority and show high performance (Bawa, Watson, & Watson, 2017). Some prominent facets of utilitarian gratification include achievement, self-presentation and flexibility.

Achievement is an urge to gain power, higher levels and authority and to compete with others. Self-presentation represents images used by players to portray themselves to influence the perception developed by other players within the game (Gil-Or, Levi-Belz, & Turel, 2015). Flexibility is one of the most noteworthy service qualities since it is well-thought-out as an advantage for social network game players because these games are played using several portable devices, for instance mobile phones and tablets, hence these games are more convenient and accessible as compared to traditional digital games (Wei & Lu, 2014).

Using portable devices, players enjoy social network gaming experience at everyplace and anytime. Consequently, these players have higher probability to become habitual as they invest more time and energy which ultimately results in increased frequency of social network gaming. A study conducted by Li et al. (2015) revealed that players who accomplished some achievements depicted greater intentions towards playing the games repeatedly. Jeon (2015) clarified that players tend to maintain their performances and they try to generate adequate and evenhanded images, by engaging in strategic activities. The convenience triggered by flexibility element from the perspective of social network gaming results in long term retention of players as compared to traditional games (Fan et al., 2013). Therefore, it is hypothesized that:

H₂: Utilitarian Gratification (UG) has a relationship with Social Network Gaming Habitual Behavior (SNGH).

Flow Experience

Flow theory was introduced by the legendary psychologist Csikszentmihalyi (1975) who defined flow experience as “the holistic experience that people feel when they act with total involvement.” While experiencing flow, individuals become immersed in activity, awareness of the individuals is constricted to the activity itself, individuals lose self-consciousness and they feel like having control of their environment. Flow theory has been extensively applied in real and virtual worlds contexts, as well as in social commerce (Liu & Chang, 2016), online gaming (Merikivi et al., 2017) and e-selling (Parvinen et al., 2015). Such literature specifies that flow theory is valuable to study people’s experiences, attitudes and behaviors across numerous frameworks.

Flow experience offers the most influential element of determining consumers’ loyalty over social network services, and it also impacts re-visit intention on social network services and recommending to others (Zhou et al., 2010). In social network gaming context, the influence of an individual’s expectations (utilitarian and hedonic) over intention to continue playing the game may be deep-rooted or enfeebled with the individual’s concrete engaging experience with the game (flow experience). High level of flow experience is analogous to big incentive for an individual to objectify expectations into intentions. Therefore, it is hypothesized that:

H₃: Flow Experience (FL) mediates the relationship between Hedonic Gratification (HG) and Social Network Gaming Habitual Behavior (SNGH)

H₄: Flow Experience (FL) mediates the relationship between Utilitarian Gratification (UG) and Social Network Gaming Habitual Behavior (SNGH)

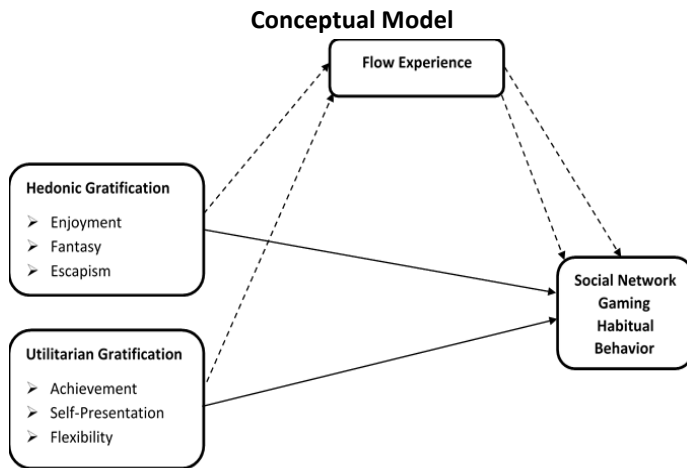


Figure 1: Conceptual model of the study

Methodology

Considering nature of present study, authors have opted for quantitative research methodology which is coherent with few other studies in similar domain (Wei & Lu, 2014; Huang, Bao, & Li, 2017). Time horizon for this research was cross sectional as data, for all variables, was collected at one point in time. The population of the present research comprised of experienced social network gaming (SNG) consumers belonging to some major cities of Pakistan including Islamabad, Lahore, Karachi, Peshawar, Quetta and Rawalpindi. Respondents were informed, before filling the questionnaire, that responses from only those Pakistani consumers who have prior experience in social network gaming are required for the present research. For the purpose of data collection, an online questionnaire was developed that contained demographic questions and items to measure variables which were adapted from different reliable, generalized and validated scales. The questionnaire also contained three demographic questions related to age, gender and education level. Two confirmation questions were also added related to city of residence and prior social network gaming experience. The final questionnaire had 30 questions in total. The number of items measuring all variables as well as their sources have been presented in Table 1. Each variable was accounted for by using 5-point Likert scale designating 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree and 1 = Strongly Disagree.

Table 1 shows number of items for measuring each variable and sources of these items and which recent studies have validated these scales.

Table 1. *Variables, Number of Items, Sources and Recent Validation*

Variable	No. of Items	Items Source	Recently Validated
Hedonic Gratification	9	Sherry and Lucas (2006) Colwell (2007)	Li, Liu, Xu, Heikkilä and van der Heijden (2015)
Utilitarian Gratification	9	Wu et al. (2010) Li et al. (2015)	Li et al. (2015) Huang, Bao and Li (2017)
Flow Experience	3	Chou & Ting (2003)	Kang, Lee and Namkung (2018)
SNG Habitual Behavior	4	Verplanken and Orbell (2003)	Hsiao, Chang and Tang (2016)

500 questionnaires, completed in all aspects, were collected from respondents through convenience sampling technique. This technique has not only reinforced the scope of the study but also helped in achieving research objectives (Mukhtar, 2015). After removing few inappropriate responses, 493 responses were considered appropriate for further use. Web based questionnaire was circulated through numerous Pakistani gamers Facebook groups and Google groups. Numerous researchers have recommended using internet for marketing research (Saunders et al., 2009). Opting for web based survey, in this research, to collect primary data was considered most viable choice as it is not only cost effective but also a reliable approach. It offers immediate access to enormous potential participants and this approach has been adopted in related researches concentrating specifically on online consumer behavior (Jeon, 2015). Online questionnaire was used since it ensures complete response, internet literacy and recording information is convenient. Respondents voluntarily participated in the survey as no monetary or non-monetary rewards were offered. All respondents were able to complete the questionnaire once only and there was no possibility to modify the response after online form submission.

Results and Analysis

The present study intended to investigate the association between hedonic gratification, utilitarian gratification and SNG habitual behavior with mediating effect of flow experience. For this purpose, several tests were executed and their results have been reported in tables. SPSS 22 was used for calculating frequency distribution and correlation analysis and SmartPLS 3.0 was used for calculating partial least square which is variance based structural equation modelling and it is generally used for validation of the proposed hypotheses. The approach is in line with few other quantitative studies carried out recent times (Hameed et al., 2020).

Demographic Statistics

Table 2 summarizes demographic profile of respondents considering age, gender and educational level. In the present study, the total number of observations (N) was 493.

Table 2. *Demographic Profile of Respondents*

Demographic	Characteristics	Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	276	56%	56%	56%
	Female	217	44%	44%	100%
Age (in years)	15-19	118	24%	24%	24%
	20-24	253	51%	51%	75%
	25-29	122	25%	25%	100%
Educational Level	Matric	60	12.2%	12.2%	12.2%
	Intermediate	82	16.6%	16.6%	28.8%
	Graduate	155	31.4%	31.4%	60.2%
	Masters	167	33.8%	33.8%	94%
	MS/M.Phil	29	6%	6%	100.0%

Analyzing gender, maximum number of respondents were males as they covered 56% of the total sample. Considering age groups, most of the responses were recorded by young consumers belonging to age group of 20-24 years as they comprised 51% of the total sample. Taking into consideration the educational level, highest number of participants were Masters degree holders and they comprised 33.8% of the total sample.

Measurement Model Assessment

The questionnaire developed to collect data consisted of items adapted from different generalized and established sources. It is essential to determine the reliability and validity of the research instrument to ensure that the gathered data is of considerable value and use. Convergent and discriminant validity have been used for establishing validity. Results of confirmatory factor analysis have been depicted in figure 2.

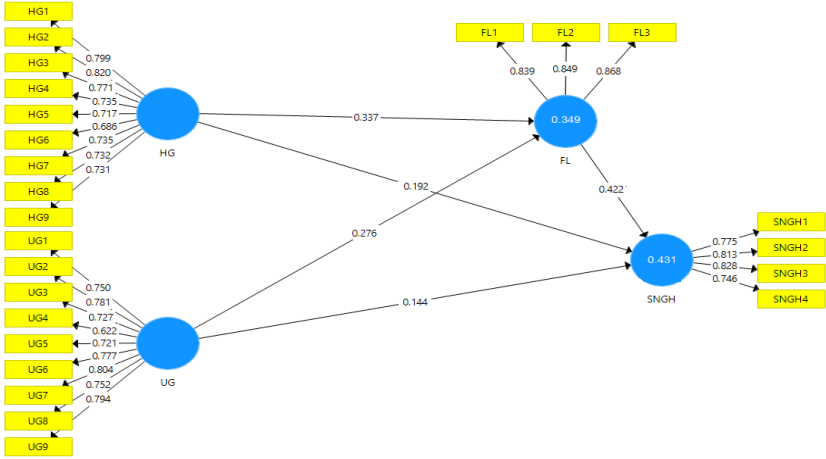


Figure 2: Measurement Model

Table 3. Factor Loadings, Cronbach's Alpha, Composite Reliability and AVE

Variable	Items	Standardized Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Hedonic Gratification	HG1	0.799	0.811	0.888	0.726
	HG2	0.820			
	HG3	0.771			
	HG4	0.735			
	HG5	0.717			
	HG6	0.686			
	HG7	0.735			
	HG8	0.732			
	HG9	0.731			
Utilitarian Gratification	UG1	0.750	0.902	0.920	0.560
	UG2	0.781			
	UG3	0.727			
	UG4	0.622			
	UG5	0.721			
	UG6	0.777			

	UG7	0.804			
	UG8	0.752			
	UG9	0.794			
Flow Experience	FL1	0.839			
	FL2	0.849	0.800	0.870	0.626
	FL3	0.868			
Social Network Gaming Habitual Behavior	SNGH1	0.775			
	SNGH2	0.813			
	SNGH3	0.828	0.904	0.920	0.562
	SNGH4	0.746			

Table 3 summarizes Factor Loadings, Cronbach's Alpha, Composite Reliability and AVE values for all variables incorporated in this study. Normally, loading value for each item should be greater than 0.7 and some social sciences researchers have suggested 0.6 as well to be suitable loading value (Hair et al., 2014). Results of this study have identified that the factor loading values are up to the standard range. Nunnally (1994) suggested that high internal consistency of the data is indicated when Cronbach Alpha value is greater than 0.7. Cronbach's Alpha value for 9 items of hedonic gratification is 0.811, for 9 items of utilitarian gratification is 0.902, for 3 items of flow experience is 0.800 and for 4 items of SNG habitual behavior is 0.904. These values are indicating strong internal consistency of the items of this study since they are closely related as a group. Fornell and Larcker (1981) suggested that the value of composite reliability should be greater than 0.7 to determine internal consistency and reliability of the scale. The composite reliability values for all variables used in this study are greater than the standard level i.e. 0.7 depicting reliability of the instrument and it can be used in different settings in order to measure same constructs at different point of time. AVE (Average Variance Extracted) is examined for the purpose of determining convergent validity. Hair, Ringle and Sarstedt, (2011) recommended that AVE should explain 50% or more variance accounted for the indicator and its value should be 0.5 or more. The convergent validity of the instrument used in this study is established as the AVE values for all latent variables are greater than 0.5.

Discriminant validity is executed to endorse that the manifest variable in a construct is related to the specific latent variable and its cross loading value

in the latent variable is greater than that in other constructs (Chin, 1988). It determines that one construct is different from other construct.

Table 4. *Discriminant Validity*

Variable	FL	HG	SNGH	UG
FL	0.852			
HG	0.334	0.748		
SNGH	0.069	0.129	0.791	
UG	0.038	0.166	0.390	0.749

The results of discriminant validity are shown in table-4. According to Hair et al. (2014), one approach of finding out discriminant validity when no item loading should be higher on any other construct than the construct it aims to measure. Fornell and Larcker (1981) also suggested that discriminant validity can be determined through AVE which should be higher than the variance among the construct and other constructs.

Correlation Analysis

Table 5 shows that all independent variables (hedonic gratification and utilitarian gratification), the mediating variable (flow experience) and the dependent variable (SNG habitual behavior) are having positive correlation among them at 1% level of significance.

Table 5. *Correlation Analysis*

Variable	HG	UG	FL	SNGH
HG	1			
UG	.679**	1		
FL	.437**	.464**	1	
SNGH	.410**	.374**	.568**	1

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

Pearson correlation value among hedonic gratification and SNG habitual behavior is .410 and it has significant p value (.000). This specifies a moderately positive correlation among hedonic gratification and SNG habitual behavior. Pearson correlation value among utilitarian gratification and SNG habitual behavior is .374 and it has significant p value (.000). This indicates a positive but slightly weaker correlation among utilitarian gratification and SNG

habitual behavior. Flow experience is also depicting a moderately positive correlation with all independent and dependent variables while having significant p value (.000). The results of correlation analysis show the hedonic gratification is having a relatively stronger correlation with SNG habitual behavior as compared to utilitarian gratification.

Direct Effect

Table 6. *Direct Effect*

Structural Path	R ²	Path Coefficient	T Statistics	P Value	Significant
HG → FL (R ² =.271)	.349	0.337	17.622	0.000	Yes
UG → FL (R ² =.256)		0.276	12.502	0.001	Yes
HG → SNGH (R ² =.214)	.431	0.192	8.460	0.000	Yes
UG → SNGH (R ² =.207)		0.144	6.210	0.002	Yes
FL → SNGH		0.422	21.561	0.000	Yes

Results of direct effects for all variables considered in the present research have been summarized in table 6. Considering beta values, t-statistics and p-values, it can be observed that all direct effects are significant. Hedonic gratification has positive and significant impact on social network gaming habitual behavior ($\beta=0.192$, $p=0.000$). Utilitarian gratification has positive and significant impact on social network gaming habitual behavior ($\beta=0.144$, $p=0.002$). Hedonic gratification has positive and significant impact on flow experience ($\beta=0.337$, $p=0.000$). Utilitarian gratification has positive and significant impact on flow experience ($\beta=0.276$, $p=0.001$). Flow experience has positive and significant impact on social network gaming habitual behavior ($\beta=0.422$, $p=0.000$). The total variance (R^2) in flow experience caused by hedonic and utilitarian gratification is 34.9% and total variance (R^2) in social network gaming habitual behavior caused by hedonic gratification, utilitarian gratification and flow experience is 43.1%.

Indirect Effect/Mediation

Table7. *Indirect Effect/Mediation*

Structural Path	Path Coefficient	T Statistics	P Values	Significant
HG → FL → SNGH	0.343	18.901	0.000	Yes
UG → FL → SNGH	0.237	11.276	0.000	Yes

The results of indirect effect/mediation have been summarized in table 7. It can be concluded from the findings that flow experience is a significant variable between hedonic gratification and social network gaming habitual behavior ($\beta=0.343$, $t= 18.901$, $p=0.000$) as well as between utilitarian

gratification and social network gaming habitual behavior ($\beta=0.237$, $t= 11.276$, $p=0.000$). The results have indicated partial mediation by flow experience in both cases since t-value is significant for the process variable.

The assessment of measurement model confirms that all hypotheses proposed in this research have been upheld. The suggested model has a positive association with SNG habitual behavior which indicates the significance of this research. The proposed variables may be reflected as imperative factors to study behavior of social network gaming consumers across diversified cultures.

Discussion

The aim of the present research was to identify the independent role of hedonic gratification and utilitarian gratification, along with mediating impact of flow experience, in forming social network gaming habitual behavior among young consumers of Pakistan. This research can be regarded as an effort to elaborate on the unique perspective of gaming behavior of young consumers from the perspective of emerging countries. The literature in this particular domain is scarce (Xu, Turel, & Yuan, 2012) and due to this scarcity of relevant literature, comparison of results of the present study with that of prior studies is indeed a challenging task. Most of the prior studies in this domain have focused on continuous intention towards usage of SNSs or playing online games and not specifically SNG habitual behavior (Kaimann, Stroh-Maraun, & Cox, 2018). The results of the present study have indicated that there is a moderately positive association of hedonic and utilitarian gratification with SNG habitual behavior. Quite a few studies that have been carried out in developed countries, focusing on relevant factors, have identified positive association between hedonic and utilitarian gratification with continuous intention to use social networking services and playing online games for a longer period of time (Wei & Lu, 2014; Li et al., 2015). The findings have also indicated that flow experience serves as an influential mediator between hedonic and utilitarian gratification and SNG habitual behavior. Previously some researchers have identified that flow experience plays a significant mediating role between hedonic and utilitarian gratification and continuous intention to use SNSs and to play online games (Huang, Hsieh, & Wu, 2014; Li et al., 2015; Huang, Bao, & Li, 2017). This leads to the recommendation that SNG service providers must consider elements of hedonic and utilitarian gratification while designing SNGs since these elements can create flow experience for SNG consumers which is expected to result in habitual behavior. Further research is still needed to be carried out across diversified cultures for enhanced understanding about how hedonic and utilitarian gratification affect gaming behavior of young consumers and particularly formation of SNG habitual behavior.

Conclusion and Directions for Future Research

The present study is among one of rare attempts to study SNG habitual behavior from developing economies perspective which is a novel contribution. Literature pertaining to incorporation of theory of uses and gratification in social network gaming context from Pakistani consumer market perspective is very scarce. This research has attempted to contribute towards existing body of knowledge as it has focused on formation of habitual behavior in social network gaming context only. Online gaming, more precisely social network gaming, is gaining popularity in the entire world and in Pakistan as well. From practitioner's perspective, this research has identified two very important determinants (hedonic and utilitarian gratification) that can help game developers and marketers to attract and retain larger number of consumers. Game developers and marketers must take into consideration important features of hedonic and utilitarian gratification like enjoyment, fantasy, escapism, achievement, self-presentation and flexibility while constructing policies regarding developing and marketing social network games. These factors can take consumers into flow state, while playing, and this can eventually lead to formation of habitual behavior for that particular game. All factors need to be incorporated at the same time to get maximum results. SNG developers and marketers should regularly inject new elements to elicit hedonic and utilitarian gratification of SNG players within the game. Special attention needs to be given to satisfy all sorts of needs of SNG players pertaining to hedonic and utilitarian gratification. Both psychological and functional aspects are considered important by the consumers as they intent to play any specific game over and over again.

The present study has identified significant role of hedonic and utilitarian gratification towards SNG habitual behavior formation but this impact is not very strong. This means that there are other factors which are hidden and they might have significant influence over SNG habitual formation as well. Future studies can elaborate on identifying those mysterious factors. This research has taken into consideration few dimensions of hedonic and utilitarian gratification. Future studies can identify and incorporate more dimensions of the proposed variables for enhanced understanding. Due to time and budget constraints, this research was confined to 493 respondents only. Therefore, future studies can consider a larger sample size for more generalized findings. Lastly, the study was carried out in Pakistani consumer market. Future studies can replicate this research in other developing and developed economies to examine validity of results in different cultural backgrounds.

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