

Factors Influence the Purchase Intention toward Paid App: Mediating Role of Satisfaction and Moderated Path Analysis of Price

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Abstract

Although the vast development potential that has been forecast for paid app purchases and the mobile game market, slight is recognized about what motivates game players to make such purchases. The purpose of this paper is to form a research model founded on the satisfaction literature and studies of value theory to classify the backgrounds of intention to purchase paid app in the setting of mobile games. The projected model was empirically evaluated using a questioner to collect data for game societies of Pakistan. Data collect to 310 responded that use mobile paid app free version. Multiple regressions were used to measure the research model. The results disclose that satisfaction to the mobile game has significant influence on a player's intention to make purchase paid apps. The perceived values of the game (playfulness, flow, connectedness and achievement) have direct influence on the satisfaction of all players but appear to have directly impact on the intentions to purchase. Satisfaction was found to have a partial impact on a player's intention to paid app. Moderating role of high price negative impact on purchase intention of paid app. Our study revealed higher price decrease the purchase intention of satisfied consumers. This study provides a better understanding of how the values encouragement satisfaction among all players of the game, and the purchase intentions of paying players. Further understandings into mobile game app marketing strategies are provided as well.

Key words: Smart phone, Paid app, Intention to purchase, Mobile games, Satisfaction, Price

1Introduction:

The growth of smart phone Internet and smart phone technology has expressively transformed our activities and our everyday lives. In current years, the growing number of smartphone consumers has motivated the usage of mobile application software for mobile devices, commonly indicated to as mobile “apps”. Initially, “app” mentioned to software for general output and information retrieval purposes, including calendar, emails and communication management, and weather info and stock market price. However, an enormous flow in consumer demand and the extensive accessibility of designer tools has driven a rapid growth to include other groups of apps containing utilities, e-books, games, social networking boards and others given that contact to entertainment lifestyle and info on business investment. According to the report of Business insider (2016) international mobile app market is earning US\$ 50.9 billion in 2016 and also projects US\$ 101.1 billion mobile applications collect income in 2020.

According to Gupta (2013) the normal smartphone app user devotes 82% of his mobile minutes consuming apps, with the residue split between e-mailing, calling and texting. Each of the important smartphone functional system suppliers (IOS, Android, Windows Mobile etc.) also hosts an app market from which customers can download apps (Google Play, App store and Windows Phone Store). To appeal more customers, countless game app originators offer a trial variety of their game apps for free and then charge a fixed monthly payment fee for finest facilities. Others agreement the full description for free and originate their income from publicity or in-app buying that unlock further stages such as commercial removal or value-added gratified. Therefore, to decrease risk and insecurity in purchasing a paid game app, customers usually start by consuming a trial or free version of a paid game app and then decided to purchase paid apps. Established on this early understanding with the experimental or free version, they then conclude whether or not to purchase the paid variety (Whitfield, 2013). In command to intensification procedure and

encourage customers to pay, new and new mobile game corporations deliver “freemium” facilities, which charge the performer nothing for straightforward procedure but need payment in physical cash for progressive functionality (Liu et al; 2015). Later, freemium app is attractive a prevalent monetization strategy to intensification income from mobile apps. However, little of these researches have definitely inspected the causes why the customers were ready to buy for pirated mobile apps facilities rather than pay for original paid app at global scale.

Freemium defines industry models where businesses offer a service for free, but a fee is charged for a superior type that entails radical types, functionality or less trouble (i.e., advertising) (Liu et al. 2014). Finest manipulators classically account for 3–5 % of overall users. Growing the percentage of premium customers divergent to free users remains to be a challenging but serious level for attainment profitability (Wagner et al. 2014). In freemium trade simulations, businesses offer a free sample and a value enhanced paid variety of services (Veit et al. 2014).

In the context of Pakistan, smart phone users are fully satisfied the feature of game but not purchase paid app. People of Pakistan is not bear high price to purchase paid game app. Reason is that because of low economy people have less purchasing power not buy even satisfied game app in future.

Although the investigation already leads on intention to purchase paid app quiet very little literature existing but living many question un-answers. Earlier research on customer were piloted in non-Asian countries whereby outcomes generated are less likely to be comparable to Asian countries like Pakistan. While few practical researches has been done on app store sector. More, slight attention has been devoted to appreciative factors such as PL, FL, ACH, CONT, SAT and PR that INTP in Pakistan. But so far no study has examined the belongings of SAT as a mediator and PR as a moderator. Current study examines the mediating effect of SAT between PL, FL, ACH and CONT. SAT and also PR bridges the gap as a moderator between INTP.

The research gap of this study is that there is a literature available of intention to purchase paid app all these researchers argue on these phenomena (Hsu and Lin 2015, Hsiao and Chen 2016). Base on the previous research outcomes, we categorized these factors into the four proportions of perceived value (Hsu & Lin 2015; Hsiao & Chen 2016). But there is no more study on PL, FL, ACH, CONT (Zhao & Lu 2012; Hsiao 2013; Wei & Lu 2014; Hsiao & Chen 2016) and with the mediating of satisfaction (Cyr et al; 2005) and moderating role of price (Yi & Jeon, 2003) in current study.

This research work will be helpful for diverse countrywide and international software houses businesses which are doing their trade in Pakistan and it will be beneficial for the dealers to target their clients in an effective way.

Theory of perceived value new research of buying behavior paid growing attention to the position of perceived value (Sweeney, and Soutar, 2001, Turel et al., 2007). Perceived value is the customer’s general valuation of the usefulness of a goods and service (Zeithaml, 1988). Researches revealed that increasing perceived value can be attained by growing the profits give or by dropping the cost of purchasing and using (Lovelock, and Wirtz, 2011). However, general valuation of the value receipts not only by good PR and good quality, but a type of values as a measure. Therefore, many researchers presented the idea of diverse values.

2 The effect of paid app games review

PL as the magnitude to which the individual observes that his or her consideration is absorbed on the interface with the game apps is interested throughout the collaboration; and bargains the collaboration essentially pleasurable or exciting (Moon & Kim, 2001). The literature designates that commitment in play create optimistic impact, such as gladness, joy, laughter and excitement, which decreases daily life tension and offers a brief outflow from routine (Hurwitz et al 2002). Furthermore, play among friends has been revealed to improve an association’s demonstrative capital (Van Vleet & Feeney, 2015). Emotional value discusses to the utility resulting from the emotional state made by the smart phone game apps (Lu & Hsiao, 2010). If consumers originate more pleasure after game apps, they will remain to play the game with optimistic approach or with even greater inspirations such SAT and payment intention (Colwell 2007; Wei & Lu 2014). Other researchers have identified that PL has a positive impact on INTP (Kim et al., 2011).

H1: Perceived playfulness positively influences intention to purchase paid app

FL has been defined as a state of prime psychological experience (Novak et al. 2000) or most pleasurable experience likely when an individual is instinctively involved in an activity such that she or he becomes so fascinated thereby that the wisdom of self is lost (Chung and Tan 2004). FL experience can typically come from a diversity of actions, such as, artistic performances, interests, work, ceremonial procedures, writing, sports, playing mobile games apps and so on. In other arguments, experiences of attentiveness, enjoyment and inquisitiveness in an activity define the involvement of FL (Moon and Kim 2001). Users become psychologically occupied when playing games (Hoffman and Novak, 1996). So, buyers who perceived FL while playing game would be likely to make business intentions (Wu & Chang, 2005). Many researchers have projected the positive effect of FL on consumer SAT, leading to INTENT (Wang et al; 2015). The previous investigation confirmed that the FL offers significant description to accepting the virtual INTENT of the customers (Kim and Han, 2014).

H2: Flow positively influences intention to purchase paid app

Social CONT is defined as a permanent and universal wisdom of the self in relation to others (Lee & Robbins, 2000). Social CONT is established from the study of belongingness (Baumeister & Leary, 1995; Lee & Robbins, 1995). In a smart phone game setting, the social value originates from CONT (Zhao & Lu, 2012). CONT references to an entity's sense of being CONT to others while playing a smart phone game (Zhao & Lu, 2012). Ha et al. (2007) prove the impact of perceived CONT on the attitude toward playing mobile games. Chang et al. (2006) inspect the effect of CONT increase the INTENT.

H3: Connectedness positively influences intention to purchase paid app

ACH goals communicate to the extrinsic reward of "being" capable, not to the basic rewards of "doing" something capably. Two ACH goal theories were predictable as key interpreters of behavior: performance goals and mastery goals (Grant & Dweck, 2003). Gamers who were encouraged by ACH involved the inspirations for development (power build-up, status and progress), procedure (modding, numbers optimization and analysis), and competition (challenging others, domination and provocation). These ACH can motivate the participant play the game even well, and can boost both the perceived value and consumer SAT (Yi & Jeon, 2003). Additionally, past study has recognized perceived value as a main factor of consumer SAT in transaction facilities and online facilities (Yang & Peterson, 2004).

H4: Achievement positively influences intention to purchase paid app

Perceived enjoyment in the setting of video games is best defined as "fun connected with playing the game" (Chou & Kimsuwan, 2015). Ahn et al. (2007) projected that a SAT consumer not only comes from an extrinsic achievement of buying goods or services but also from individual and emotional achievement from buying resulting pleasure. They also presented that PL is positively linked to attitude toward usage of virtual games and intention to use virtual app purchasing.

H5: Satisfaction positively mediates the relationship between playfulness and intention to purchase paid app. FL has been functional in different online atmospheres such as games apps banking apps and mobile instant messaging (Gao & Bai, 2014). In an online situation, research scholars have hypothesized that such positive FL experiences can appeal customers, diminish PR sensitivity and positively affect succeeding attitudes and activities (Novak et al; 2000). Specially, scholars have revealed that a convincing FL experience is positively connected with customer attitudes toward the mobile paid games Mathwick and Rigdon (2004) as well as being positively linked with the INTENT and devote more time with paid game apps (Kabadayi & Gupta, 2005).

H6: Satisfaction positively mediates the relationship between flow and intention to purchase paid apps Interaction is a type of behaviour between two or more entities. In previous studies interaction is typically categorized into two types. The first is the contact among the consumer and the system, and the second is consumer to consumer interaction (Choi and Kim, 2004). It was comparable to the social value aspect of user perceived value, which was positively associated to SAT (Sweeney & Soutar, 2001). Thus, we planned that more CONT users perceived from using paid apps would result in satisfaction. Furthermore, in specific competitive players have been shown to display the greatest wish to connect with other players, especially experts, in order to acquire and improve their gameplay skills (Coursaris et al; 2016).

H7: Satisfaction positively mediates the relationship between connectedness and intention to purchase paid apps

According to the social identity theory, different ACH object denotes to the desire to reserve a optimistic self-concept through the achievement of an object. To explain the idea, player trusts that they cannot only touch a sense of personal ACH, but also surge their self-esteem when their beloved game succeeds. Customer SAT with a product can make extended period benefits for companies counting positive WOM, cross-buying, consumer SAT and INTP (Palmatier et al; 2006). To minor consumer defection rates and increase consumer SAT, both consultants and academicians have recognized that consumer SAT is a main portion in any consumer retaining approach (Oliver, 1999). For observer sports, consumer SAT has been observed as a significant forecaster of INTP paid apps in future (Kwon et al; 2005).

H8: Satisfaction positively mediates the relationship between achievement and intention to purchase paid app

PR denotes to the value resulting from a smart phone game service because of a decrease in its perceived short-term and long-term PR (Lu & Hsiao, 2010). PR is typically used as the main amount representative the expense customers spend to take a good and service. Every person grips a diverse observation of the PR he or she is agree to purchase. The PR of a goods and service is a financial cost. Economically sensible consumers usually see PR as an essential monetary cost factor (Zeithaml, 1988). Earlier researches identify that PR rises, perceptions of value would drop (Kwon & Schumann, 2001). Certainly, pursuing the best PR is a main inspiration of online customers (Swatman et al; 2006). This research describes perceived to high PR as the mark to which the customer trusts that he or she must not pay in cash to take paid apps. Higher the PR or higher perceive value customer satisfied but not buy paid app customer search for alternative or free apps. Reason is that customer has low purchasing power. PR has verified its significant impact on customers' assessment of goods substitutes and their final purchasing choice (De Medeiros et al; 2016).

H9: Price negatively moderates the relationship between intention to purchase paid apps and Satisfaction

RQ1: To what extent association exists between PL and INTP?

RQ 2: To what extent association exists between between FL and INTP?

RQ 3: To what extent association exists between between CONT and INTP?

RQ 4: To what extent association exists between ACH and INTP?

RQ 5: To what extent SAT mediates the association between PL and INTP?

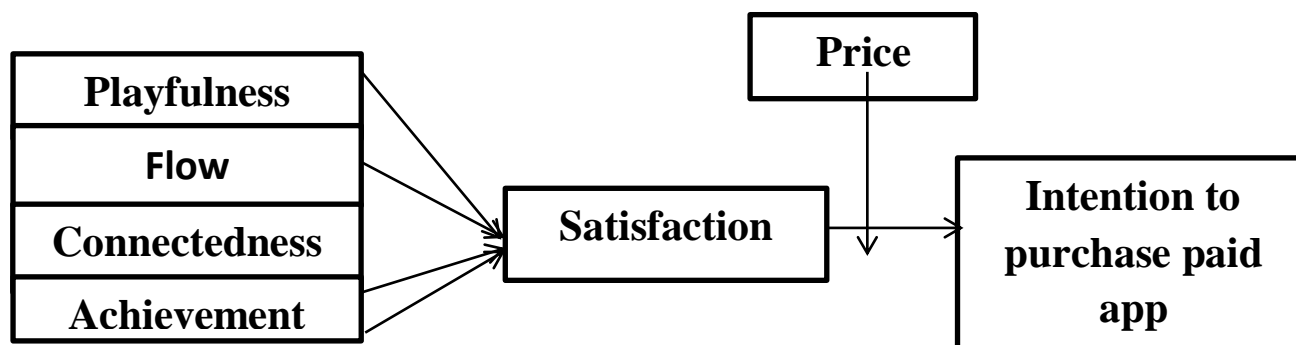
RQ 6: To what extent satisfaction mediates the association between FL and INTP?

RQ 7: To what extent satisfaction mediates the association between CONT and INTP?

RQ 8: To what extent satisfaction mediates the relationship between ACH and INTP?

RQ 9: To what extent price moderate the association between satisfaction and INTP?

Theoretical framework



3Method: Primary data on independent, dependent, mediating and moderating variables was gathering from smart phone app player from different gamer society of Pakistan such as Pill Brain Demons, Elegant Death Squad, Purple Mafia, Blue Death Cadets, Thing Called Deadly, Ironi Q and Rogue Warriors. Questionnaire survey technique used for primary gathering of data, target respondent were sure of hidden and sure that no

data they provide will be exposed to someone and use for the research purpose. Respondent were requested

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11
Gender	1.09	0.29	1										
Marital status	1.65	0.47	.024	1									
Age	1.34	0.55	.40	-.567**	1								
Qualification	5.30	0.77	.000	.080	.250**	1							
PL	3.47	0.22	-.066	.096	-.069	-.025**	1						
FL	3.67	0.89	-.104	.030	.084	-.011	.350**	1					
CONT	3.67	0.96	-.125*	.051	-.021	.020	.540**	.504**	1				
ACH	3.46	0.27	-.061	.112*	-.094	-.021	.487**	.337**	.546**	1			
SAT	4.38	0.44	-.103	.267**	-.230**	.104	.175**	.388**	.181**	.068**	1		
PR	3.72	0.82	-.037	-.023**	.037	.400**	.185**	.275**	.246**	.275**	.210**	1	
INTP	3.80	0.89	-.011	.158**	-.058	.367**	.151**	.261**	.238**	.141**	.260**	.732**	1

for to fill the questioner carefully additionally gives correct assumption purposive sampling technique use for collecting data. The outstanding 310 survey were used for examination.

4Data Analysis: The hypotheses were tested using a multiple regression for predicting purchase intention data with the control variables entered in a first block, and then enter independent variables, and use Preacher and Hayes in mediation. All the instruments used in this study are designed on the five point likert scale. These scales were earlier used by so many studies which mean these are best fit for our study. Total seven variable use in this research paper Playfulness 4 item Hsu and Chiu (2004), Flow 3 item Novak et al. (2003), Connectedness 3 item Lee (2005), Achievement 3 item Trail et al. (2003), Satisfaction 3 item Bhattacharjee (2001), Price 3 item Hsiao (2013) and Intention to purchase paid apps 2 item Hsiao (2013).

Correlation Table

5 Results: In the regression analysis, a number of control variables explained significant variance (see Table 1), but three of the four independent variables maintained the four highest standardized coefficients. Playfulness were the strongest positive predictor ($\beta = 0.132$), supporting H1. Flow ($\beta = 0.249$), Connectedness ($\beta = 0.207$) and Achievement ($\beta = 0.123$) were strong positive predictors, supporting H2, H3 and H4. Results for the regressions in answer to RQs 1 to 4 are presented in Table 1.

Table1 Results of Regression Analysis

	Intention to Purchase Predictor			
	β	R^2	ΔR^2	
Step 1				
Control variables.170				
Step 2				
Playfulness		.132	.192	.023
Flow	.249	.230	.060	
Connectedness		.207	.219	.049
Achievement		.123	.189	.020

Table 2 Direct effect of mediation (Preacher and Hayes)

Model	Effect	SE	T	P	Outcome variable INTP
Playfulness	.1152	.0478	2.4109	.0165	
Flow	.2394	.0534	4.4818	.0000	

Connectedness	.1830	.0508	3.6024	.0004
Achievement	.1025	.0475	2.2610	.0245
Indirect effect				
Model	Effect	Boot SE	BootLCI	BootULCI
Satisfaction	.0163	.0126	.0063	.0437
Satisfaction	.0209	.0140	.0034	.0525
Satisfaction	.0375	.0136	.0156	.0708
Satisfaction	.0149	.0127	.0076	.0439

Playfulness (RQ5) exhibits a partial relationship with satisfaction (direct effect = .1152, indirect effect = 0.0163). Flow (RQ6) exhibits a partial relationship with satisfaction (direct effect = .2394, indirect effect = 0.0209). Connectedness (RQ7) exhibits a partial relationship with satisfaction (direct effect = .1830, indirect effect = 0.0375). Achievement (RQ8) exhibits a partial relationship with satisfaction (direct effect = 0.1025, indirect effect = 0.149). Hypothesis H5 to H8 all accepted.

Table 3 Moderated Regression Analysis

Predictor	Intention to Purchase		
Moderator analysis	β	R^2	ΔR^2
Step 1			
Control variable		.170	
Step 2			
SAT	.432	.212	.042
Step 2			
SATxPR	-.175	.597	.385

SAT=Satisfaction, PR=Price

Price (RQ9) exhibits a negative relationship with INTP ($\beta = -.175$) interaction term SATxPR show negative relationship Hypothesis 9 is accepted higher price decrease INTP.

6 Discussion: The most important objective of this research is to find out the characteristics of perceived value impact on INTP. In the context of paid game apps we discuss the factors of perceived value impact on INTP. This study examined the effects of PL, FL, CONT, and ACH on consumer INTP between game apps user in Pakistan. Experimental outcomes via multiple regression analysis specified that PL, FL, CONT, and ACH composed effect consumer INTP between consumers in Pakistan. The number of game apps users is increasing year by year, and the time they pass on apps increases as well. More in specific, outcomes showed that the association among PL and INTP as hypothesized in H1 is positive and significant impact. Results showed that the effect of PF had significant positive effect in the paying apps. In this study about purchase of smart phone apps, Kim et al. (2011) found that perceived PF had a positive impact on INTP.

Further examination of the study found that FL has significant impact on INTP, which maintained H2. The outcome of previous research where the FL is advanced as uni-dimensional, even though they are in different perspectives, FL have significant impact on INTP (Liu and Shiue, 2014). Next, conjecture about 3 hypothesizes that CONT essentially impacts consumer INTP between consumers. CONT references to a person's wisdom of being linked to others through playing a smart phone game apps (Zhao & Lu, 2012). Also, the significances of multiple regression analysis for H4 as showed that ACH has positive and significant result on customer INTP. ACH of player will playing have positive impact on INTP. When player playing games and clear the stages of games or receive virtual coins or gift they feel proud for our

ACH and decide for purchase full version of paid app in future. Virtual ACH motivate the player to purchase paid apps. ACH has positive or significant impact on INTP (Yang & Peterson, 2004). Social motivations and Un-clocked stages have been considered to be one of the main types of motivations for purchases of paid app or fully functionally apps (Lehdonvirta, 2009). Many previous have find the relationship between differing social aspects, such as ACH (Shang, Chen, & Huang, 2012).

Sat mediates the relationship among PL, FL, CONT, ACH and INTP. More the specifications or value in paid app increase SAT and INTP. Customer satisfaction is well-defined as the customers' assessments of former associations, trades or experiences with a corporation, a goods or a service with respects to their desires and expectations (Oliver, 1980). Past studies of conventional retailing have point out that service quality significant influences customer satisfaction (Cronin et al., 2000). Perceived value often shows a significant part in the market. However customers perceive the value of product and service, SAT and intention to purchase will increase. Lin et al. (2005), in a research of continued use of paid apps, definite that PL is positively associated with SAT. Noh et al. (2016) examined that playfulness had a significant effect on e-loyalty. Customer SAT is defined as a pleasing fulfillment response toward a good, service, benefit, or ACH (Oliver, 1997). Feature of product help the consumer to purchase product in future. Result show that significant relationship between SAT and PL, FL, CONT, ACH and INTP. All hypothesis of mediation H5, H6, H7, H8 is significant and accepted.

This research examined the influences of PR (moderator) moderate the association among IV INTP and mediator variable such as SAT. Investigational outcomes via multiple regression analysis specified that PR significantly moderates the association between SAT and INTP. More in specific, outcomes shown that PR moderates the association among SAT and INTP as hypothesized in H9 significant. Economically sensible consumers usually see PR as an essential monetary cost component (Zeithaml, 1988). Earlier researches identify that PR increases, perceptions of value would drop (Kwon & Schumann, 2001). Certainly, pursuing the best PR is a key inspiration of online buyers (Swatman et al; 2006) PR has verified its significant impact on buyers' evaluation of product substitutes and their final purchasing decision (De Medeiros et al; 2016).

7 Limitation and Future Research Directions

There is a little limitation in this essence, apart from some hypothetical and rational consequences which should to be inclined to in upcoming researches. All researches are subject to limitations, Data was gathering from different games societies. So consequently, these outcomes cannot be comprehensive on other societies. So future study can be piloted on other apps like software paid apps like office software world, PPT, PDF and entertainment software, antiviruses apps and songs apps and exercise apps etc.

The outcomes of this research are not generalizable on all other businesses because this study is lead only on paid app games business. It is recommended that future researches can moderately analyse more than one business like online website industries, mobile commerce, clothing business, and tourism business.

This research was cross sectional explanation of a causal association between DV consumer INTP, IV (PL, FL, CONT and ACH) with mediating role of SAT and moderating role of PR. Future study approve longitudinal. The theoretical frame work of this research is moderated mediated model with PR as a moderator and SAT as a mediator.

Future research can use diverse variable use as a mediator and as a moderator. As a moderator Personality traits variable is used and sample taken from countries with a changed culture and lifestyle may be show different results and target different apps segments. We can use mediator Customer loyalty as variable. Future studies can more explore other smart phone game related factors, such as user social propensity, touchscreen interactivity and interface. Different types of smart phone apps may also disclose different results.

5.4 Conclusion

This study establish the result of PL, FL, CONT, ACH on INTP and mediating role of SAT and moderated path analysis of PR. Outcomes have shed certain light on which causes intense effect INTP between customers, which is not discuss in the literature within the Pakistan setting. Conclusions would help Apps developer in Pakistan understand the psychology of consumer what kind of paid app the like or what kind of specification in our paid apps and how much price the easily bear out. The outcomes of this research advises that PL, FL, CONT and ACH offer apps developer and owners the capability to boost and

increase the consumer INTP of their paid apps SAT and make negative PR by consumer about the apps. Marketers should do well to take the benefit of the openings.

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Abbreviation List

Playfulness.....PL, Flow.....FL, Connectedness.....CON, Achievement.....ACH,
Satisfaction.....SAT, Price.....PR, Intention to purchase.....INTP