

## **Impact of Smartphone Apps Benefits on Consumer Satisfaction, Loyalty, and Purchasing Intent**

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### **Abstract**

This study's purpose is to investigate the impact that smartphone apps have on customers' propensities to remain loyal to a brand, their level of overall satisfaction, and their desire to make future purchases. The data was obtained from a sample of 323 participants by the presentation of a standardized questionnaire. The study employed a judgmental selection technique to choose participants, and data collection was carried out in a controlled environment with minimum intervention. The data collected from the participants was subsequently analyzed using SPSS Version 21.0. The study's results indicate that hedonic advantages exert a notable and positive influence, whereas learning and personal benefits exhibit a more robust and conspicuous impact on consumer loyalty and happiness. However, the advantages have a minimal and detrimental influence on customers' buying intentions. The impact of social benefits on consumer purchase intentions has been empirically demonstrated to have positive outcomes when examined independently. The implications of this study are of significant relevance to marketers and developers of Smartphone applications in Pakistan, as they can utilize these findings to augment consumer loyalty, contentment, and purchase inclinations.

**Keywords:** Customers' Loyalty, Customers' Satisfaction, Hedonic, Purchase Intention and Smartphone's Applications.

## Introduction

Modern assistive technologies like personal computers, smartphones, and mobile devices have improved human life by increasing convenience, satisfaction, and fulfillment (Chang, 2015). Smartphones stand out among technical devices. Features previously confined to specific devices are now available to everyone. Smartphones are more useful with apps (Bellman et al., 2011). Smartphone apps provide several benefits for users and developers. Advantages span many categories and affect software users differently. Smartphone apps are either branded or unbranded. Branded apps have a clear sponsor, while non-branded apps do not. Smartphone apps that build brand loyalty and match customer needs have a big impact on the sponsor-customer relationship. Smartphones have transformed several sectors and daily lives. Mobile phones have made education easier and more accessible. A user-friendly smartphone app streamlines many financial activities. Smartphones have changed business culture and customer relationship management.

Pakistan's smartphone market is growing steadily. Cellphone customers number over 135 million, with many having numerous devices. Along with financial market volatility, recent changes show that the smartphone market has grown steadily (Ferguson, 2015). Our study focuses on smartphone apps' effects on customer satisfaction and loyalty. According to Fenu and Pau (2015), corporations choose to invest more in the Apple App Store and Google's Play Store than in Windows or other operating system stores. This situation is mostly caused by the widespread use of smartphones, most of which run Android or are iPhones. Both operating systems have many applications within their platforms. As of 2016, the Google Play store hosted a total of 2.2 million applications, as reported by Statista. Compared to its competitors, the Apple App Store offers a significantly smaller selection of over two million applications.

Chang (2015), Fenu (2015), WU (2015), and Alnawas (2016) found interesting and useful information about smartphone app uptake, use, and durability. Scholars have long recognized mobile app uptake as a major academic topic. Previous studies did not consider the Pakistani economy and market. This study examined the relationship between smartphone app benefits and user satisfaction, loyalty, and purchase intentions. The fundamental goal of this study was to thoroughly investigate and understand these events through rigorous scrutiny. The study used an explanatory approach in a natural setting and selected 323 participants through a judgmental sampling procedure. The KMO test validated sample sufficiency (Bryman, 2012). We utilized the metric and created the questionnaire for our research. For conducting the analysis, the widely used statistical program SPSS version 21.0 was utilized. The survey collected data on all Pakistani client applications, not a particular application

preference. This phenomenon has pros and cons. Not segregating the sector and applications can increase build generalizability. Because most of these apps follow an authoritative philosophy that optimizes performance. We collected extensive participant data to use their expertise to assist a wider audience. This data can help app developers make informed decisions and succeed in the market. These perks' effects on customer satisfaction, loyalty, and purchase intentions were well-documented, and its components were proven. In the industry, a lot of money goes toward developing and promoting smartphone apps, while research and user outcomes are neglected. This remark stresses not focusing on one application or sector.

### **Literature Review**

A review of existing literature on the impact of Smartphone apps' usefulness on customers' loyalty, satisfaction, and purchase intention is reported in this section to highlight the research gap and to set the agenda for this study. Hedonic rewards are the main way to boost smartphone app loyalty. (Alnawas & Aburub, 2016; Kim et al., 2013;) Previous research has shown that several aspects affect user adoption and usage of an application. Academics claim that smartphone app research has been undervalued despite its importance (Veríssimo, 2016; Zhao & Balagué, 2015). Previous studies that linked the Model for Accepting New Technology with the Plan for Action Based on Reason did not examine how user consequences affect consumers' loyalty, satisfaction, and purchase intentions (Alnawas & Aburub, 2016). Our main focus is how smartphone app benefits affect consumer loyalty, satisfaction, and purchase intentions. When assessing smartphone app benefits for user loyalty and enjoyment. This domain's study has largely focused on application development and technological aspects (Alnawas & Aburub, 2016).

### **Learning Benefits of Smartphone Apps**

Cognitive, or learning, benefits include the acquisition, perception, comprehension, clarification, and grasp of knowledge or abilities. Previous research has explored the benefits of using a mobile app for customers or users. Scholars believe a mobile app can provide valuable business knowledge (Alnawas & Aburub, 2016; Deloitte, 2012; Godwin-Jones, 2011). Smartphone apps educate customers about a product's nature, use, and availability for purchase.

### **Social Integrative Benefits**

The sources include Waller (2015), Macquail (1987), and Nambisan and Baron (2007). Mobile devices can be used for socializing and forming beliefs. Mobile apps that let users tag friends and family can improve personalization and increase social media virality. People prefer to voice their preferences and provide feedback to

improve various elements, according to Zhao and Balagué (2015). Modern apps allow users to voice their opinions on social media. Users would also discuss program features and issues to help them resolve them independently and quickly (Alnawas & Aburub, 2016).

### **Personal Integrative Benefits**

Personal benefits include social status, perceived worth, public image, prestige, and self-efficacy (Katz & Blumler, 1974). According to Lown (2011), persons with a strong connection to this skill are more efficient at tasks others find difficult or impossible. Smartphone apps can boost self-confidence and self-efficacy. These apps can also boost an individual's value, reputation, and prestige among peers and sponsors (Alnawas & Aburub, 2016).

### **Hedonic Benefits**

Hedonic advantages are client-pleasing events, according to Alnawas and Aburub (2016). Mobile phone apps target customer displeasure and disinterest. The app keeps customers engaged and happy. This advantage relaxes clients, surprises them, and boosts their emotional well-being, grabbing and retaining their attention (McQuail, 1987). IKEA's mobile app offers a camera capability that lets customers virtually put furniture in their living areas and evaluate its aesthetics. Customers liked the experience and wanted to keep using it. Smartphone apps with gamification and other features provide hedonic and enjoyable experiences.

### **Theories and Hypotheses**

In 1988, Martin and Icek Ajzen proposed the Theory of Reasoned Action (TRA), which states that pre-existing attitudes and behaviors impact an individual's actions in a given scenario or toward a specific Individual. Fishbein (1979) study, Madden, Ellen, and Ajzen (1992) study, and Vallerand, Deshaies, Cuerrier, Pelletier study, and Mongeau (1992) study, all these studies employed the uses and gratification hypothesis instead of earlier ideas in this investigation. According to Katz (1959), the gratification approach holds that audiences are engaged participants who use media for a purpose. Lin, 1996; Katz and Blumler, 1974. According to Alnawas and Aburub (2016), previous research only identified client motivations for using specific applications. Application developers should not be creative and innovative in certain areas while following norms in others. Use consumer preferences and usage patterns to your advantage.

## **Development of Hypotheses**

### **Customer Satisfaction**

Prior studies have shown that online customer experience leads to consumer satisfaction and purchase intention (Rose, Clark, Samouel, & Hair, 2012). Customer satisfaction affects a company's future revenues (Fornell, 1992; Forozia, Zadeh, & Gilani, 2013). Customers are satisfied when they feel they get value from service. According to the findings of Mont and Plepys (2003), it guides the person towards either a state of contentment or discontentment. According to research conducted by Balasubramanian, Konana, and Menon (2003), several businesses are attempting to make use of virtual interfaces to increase sales and consumer interaction. The key to repeat business and maintaining trust in the service environment is ensuring the satisfaction of the customer. According to Seyal and Rahim (2011), physical and online consumer satisfaction are influenced by the same factors. Smartphone apps can boost consumer satisfaction by integrating their benefits and meeting their needs, increasing their use.

### **Customer Loyalty**

Several scholarly investigations have established correlations among consumer satisfaction, loyalty, and future purchases in both virtual and onsite settings (Chen, 2012; Sambasivan, & Sidin, 2017; Kumar, and Ganesh, 2013; Youjae, 2006). According to Garvin (1988) and Bolton, customer satisfaction has the potential to foster a strong sense of loyalty among customers. Yang and Peterson (2004) utilized an online web-based survey to examine consumer preferences. The findings revealed that a significant majority of consumers expressed a strong desire for good service and perceived value. Furthermore, these factors were found to positively influence consumer loyalty, indicating a willingness to maintain long-term relationships with the service provider. The study conducted by Srinivasan, Anderson, and Ponnnavolu (2002) examined customer loyalty within the framework of business-to-consumer interactions, examining the causes and consequences of loyalty within the context of online environments. The authors engaged in a discussion regarding the impact of eight elements, commonly referred to as the 8Cs of online loyalty building, on the development of e-loyalty. E-loyalty offers further advantages to businesses in terms of word-of-mouth communication and the willingness of customers to pay a higher price. In our present scenario, loyalty refers to the allegiance demonstrated towards the sponsor of the application and smartphone app.

### **Purchase Intentions**

Maoyan, Zhujunxuan, and Sangyang (2014) used the model of stimulus-organization-reaction and the Model for Accepting New Technology to evaluate

consumer purchase intentions in social media marketing. They found that social media marketing indirectly affects client future purchases. Ha et al. (2014) evaluated certain factors and their influence on consumer buying intention. The researchers found an indirect association between service quality and clients' purchasing intent. Smartphone apps are a powerful way to influence consumer brand purchases.

The study focuses on a single independent variable, namely the advantages created by smartphone apps. However, it encompasses three dependent variables, namely consumer satisfaction, consumer loyalty, and buying intention. The advantages obtained from smartphone apps may be classified into four distinct dimensions: educational advantages, social inclusion advantages, personal inclusion advantages, and hedonic advantages. The purpose of this research is to quantify these facets and investigate the influence that they have on consumer satisfaction, loyalty, and intention to buy. Hypotheses are formulated to examine the connections between these characteristics and the results experienced by customers.

*H1*: Consumer satisfaction and learning gains are positively correlated.

*H2*: Consumer satisfaction is positively correlated with social integrative benefits.

*H3*: Customer satisfaction is positively correlated with personal integrative benefits.

*H4*: Consumer satisfaction is positively correlated with hedonic advantages.

*H5*: These hypotheses were adapted from Alnawas & Aburub.

*H6*: A positive association exists between learning advantages and consumer loyalty.

*H7*: Consumer loyalty is positively correlated with social integrative advantages.

*H8*: Consumer loyalty is positively correlated with personal integrative advantages.

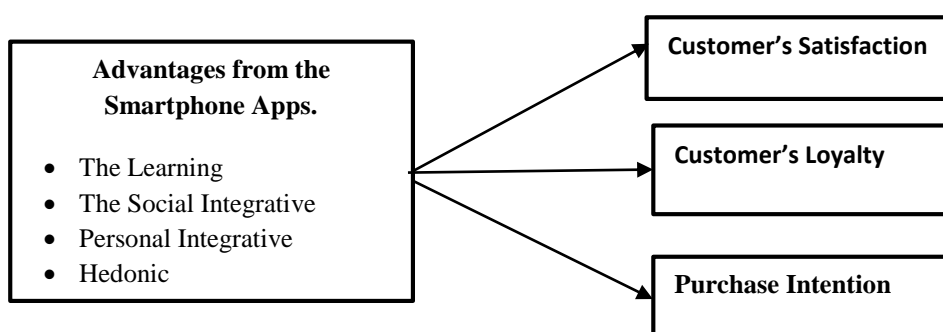
*H9*: Hedonic advantages boost consumer loyalty.

*H10*: Learning benefits positively affect consumer purchasing intent.

*H11*: Social integrative advantages positively affect consumer purchase intent.

*H12*: Personal integrative benefits positively affect customer purchasing intent.

*H13*: Hedonic advantages positively affect customer purchasing intent.



### Theoretical Framework

The study's data were obtained via structured questionnaires that were personally distributed to respondents of various ages, education levels, gender, income

levels, and smartphone devices to generate generalizable data. The survey was done under normal conditions. The researcher only spoke with respondents when they had a problem; otherwise, no compulsion was imposed during or before the response. Because most smartphones are personal devices, we used one person as a unit of study. Our study included smartphone owners and users of branded Pakistani smartphone apps. As the population size was unknown, the formula was used to generate 380 samples (Bryman 2012). We have 354 responses out of 380, a 93.15% response rate and 323 relevant responses. Thus, these reactions were analyzed. Judgmental sampling was used to select respondents based on their smartphone app expertise and use. Current research questions were derived from previous studies. Requesting permission to use the questionnaire from the original authors.

This study used an eight-section questionnaire. The researcher added demographics first. The first six variables were measured using a construct from the academic study of (Alnawas & Aburub, 2016), consumer loyalty questions from the academic study of (Zhang et al., 2016), and purchasing intent questions from the academic study of (WU, 2015). Fully ethical research was done. Only scholarly data was collected and investigated, and hard copies of responses were maintained securely. This study employed IBM SPSS 22.0 for social science data analysis. Results were obtained using SPSS and numerous statistical methods. The pilot study tested if the questionnaire fits Pakistani culture and yields useful results. The results were astounding: 31 participants completed the questionnaire with 100% correct answers, and the Cronbach's Alpha was 92.4%, encouraging us to continue this effort.

*Table 1*  
Reliability Statistics

Cronbach's Alpha	No. of Items
0.924	31

## Data Analysis and Results

We used correlation, reliability test, factor analysis, and regression analysis on structured questionnaire data from brand smartphone app users to determine how brand smartphone app benefits affect customer satisfaction, loyalty, and purchase intention.

### Reliability Analysis

Reliability analysis determines if a research instrument's scale generates steady results. The reliability of a survey was measured using Cronbach's Alpha. Cronbach Alpha quantifies random error on variable scores (Al-Tamimi, 2006). A highly trustworthy instrument has a Cronbach Alpha value above 0.80 (Lobbestael, Arntz, & Bernstein, 2010), although above 0.70 is acceptable (Nunnally, 1978) academic study.

Table 2

## Overall Reliability

Cronbach	No. of Items
0.837	31

Tables 2 and 3 demonstrate that the instrument's Cronbach Alpha coefficient is 0.837, higher than 0.70 (Nunnally, 1978) academic study. Cronbach Alpha exceeds 0.80, making the instrument highly dependable.

Table 3

## Individual Variables Reliability

Variables	Number	Cronbach's Alpha
Learning Advantage	4	0.684
Social advantage	5	0.607
Personal advantage	5	0.724
Hedonic advantage	7	0.696
Customer Satisfaction	4	0.656
Customer Loyalty	3	0.654
Purchase Intentions	3	0.783

Table 3 reports research variable reliability. This table displays 4 learning-benefit items with 0.684 Cronbach Alpha. Cronbach Alpha is 0.607 for social benefits' 5 factors. Personal advantages have 0.724 Cronbach Alpha. Cronbach Alpha 0.696 predicts hedonic benefits. A Cronbach Alpha of 0.656 indicates customer satisfaction. 3-item customer loyalty Cronbach Alpha is 0.654. Three-item purchase intention Cronbach Alpha is 0.783. Every variable has adequate Cronbach Alpha coefficients (Nunnally, 1978).

### Demographic Profile

For this study, 323 diverse people were sampled. 37% of 323 respondents are under 20. 60.4 percent—195 respondents—are 20-30. Most respondents are here. 2.5%, 8 responders, are over 41, whereas 6.5%, 21 are 31-40. Matriculated 4.6%. This instrument intermediates 23.5% of the sample. 38.1% were bachelors, who dominated the sample. 26.9% have a master's degree. 5.6 percent M.Phil. 1.2% have Ph.Ds. 37.5 percent—121—are women, a minority in the sample. 62.5% men. In the sample, 202 male responses imply a male majority.

47.4% of respondents earn less than Rs.100,000. 23.5% make 100,000–150,000 each month. 12.4% earn over Rs.200,000 per month, while 16.7% earn between Rs.150001 and Rs.200000. The majority (66.9%) use Android. iPhone 12.7%. 12.1% use another OS and 8% use Windows iPhone. 35.3% apply for less than a year.



35.3% (114 respondents) had used the application form between one and two years. 28.8%, or 93 respondents, utilized the application form for two years already.

### Factor Analysis

Sample adequacy is measured by the KMO test. It should be 0.5–1. Kaiser (1974) claimed that a wonderful value is greater than 0.9 and an adequate value is Bartlett's Sphericity theory of 0.5–0.7 states that population variables are uncorrelated. This test should be below 0.05. Value relevance is shown.

*Table 4*

Results of the Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test

<b>KMO and Bartlett's Test</b>	
The Kaiser-Meyer-Olkin measure assesses the adequacy of the sampling	0.770
A Test of the Sphericity by Approx. Chi-Square Barlett	2.926E3
Df	465
Sig.	0.000

Table 4 reveals KMO test is of 0.770, within the range. Data's testing is adequate. Bartlett's Sphericity test significance is 0.000. This indicates a considerable link between measure items.

### A Matrix of Correlation

*Table 5*

Sr.N	Variables	LB	SB	PB	HB	CS	CL	PI
1	Learning Advantages	1						
2	Social Advantages	.772**	1					
3	Personal Advantages	.249**	.730**	1				
4	Hedonic Advantages	.335**	.482**	.342**	1			
5	Customer Satisfaction	.344**	.320**	.321**	.366**	1		
6	Customer Loyalty	.277**	.317**	.299**	.606**	.353**	1	
7	Purchase Intentions	.224**	.249**	-.190**	.203**	.046	.181**	1

Table 5 displays Pearson correlation data. Personal, learning, hedonic, and social rewards considerably increase consumer happiness and loyalty. Personal gains hampered purchases. Learning and social benefits connected highest, while customer satisfaction and purchase intents were unimportant.

For multicollinearity, all independent variable correlations must be below 0.90 (Sit et al., 2009). None of the variable correlations in Table 4.12 exceeded 0.90, indicating no multicollinearity. It meets a linear regression requirement.

### Regression Analysis

Regression analysis quantified the independent-dependent relationship. In regression analysis, additional variables or factors are kept constant to illustrate how independent variables affect dependent variables. One independent variable, smartphone app advantages, and three dependent variables are studied. This independent variable is measured in four dimensions; hence multiple linear regression requires three models.

#### First Model

The influence on a customer's level of pleasure is exerted by educational advantages, social inclusion advantages, personal inclusion advantages, and hedonic rewards.

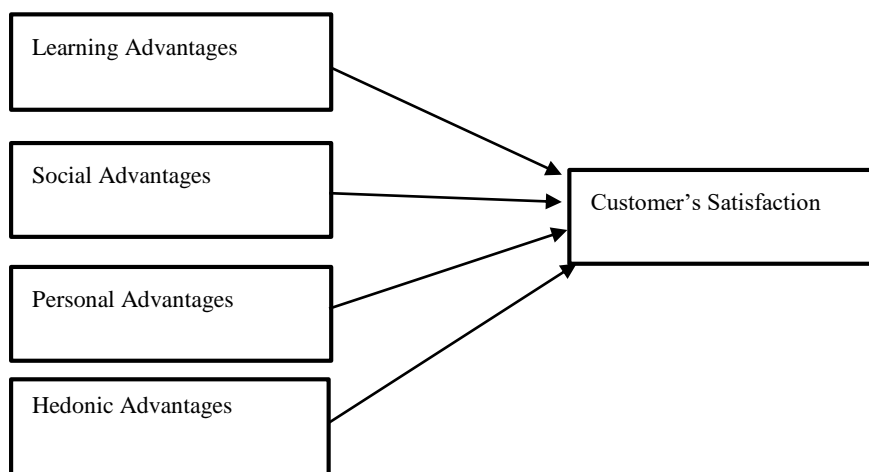


Figure 1

Table 6  
Summary of the Model

R	R Square	Adj. R Sq.	Durbin-Watson
0.468	0.219	0.209	1.743

In the first model, learning, social, personal, and hedonic gains explain 21.9% of customer satisfaction change (R square = 0.219). Adjusted R square shows this study's sample results' population relevance.

Set Durbin-Watson at 1.5–2.5. Durbin-Watson inside this range has no autocorrelation. The first model Durbin-Watson is 1.743, which is in the range, indicating a lack of self-correlation.

*Table 7*  
Analysis of Variance

<b>F</b>	<b>Sig.</b>
22.037	0.000

If the estimate of the F is larger than 5, the threshold is less than 0.05, as shown in Table 7, then the model is well-fitting.

*Table 8*  
Regression Analysis

	<b>Beta</b>	<b>Std. Error</b>	<b>Sig.</b>	<b>Tolerance</b>	<b>VIF</b>	<b>Remarks</b>
Constant	0.821	0.292	0.005			
Learning Advantages	0.339	0.104	0.001	0.408	2.452	H1 accepted
Social Advantages	-0.115	0.139	0.409	0.341	2.929	H2 not accepted
Personal Advantages	0.212	0.060	0.000	0.829	1.207	H3 accepted
Hedonic Advantages	0.296	0.069	0.000	0.729	1.371	H4 accepted

Values of beta in Table 8 show how much customer satisfaction changes when the independent variable changes while other variables remain constant. Learning advantages boost consumer happiness, as seen in Table 8. The learning benefits coefficient is 0.339 and significantly below 0.05. Learning advantages impact customer satisfaction. Because their coefficient is negative 0.115 and the level of importance is higher than 0.05, social benefits negatively affect customer satisfaction. Thus, societal benefits do not affect customer satisfaction. Personal gain coefficient is 0.212,  $P < 0.05$ . Personal advantages greatly improve client satisfaction. Since hedonic advantages have a coefficient of 0.296 and a P value of 0.000, they improve consumer satisfaction. This

suggests hedonic advantages increase customer satisfaction. Table 8 has no multicollinearity because all variables have tolerance values over 0.1 and VIF below 10.

### Second Model

This study examines the influence of providing consumers with learning advantages, social benefits, personal benefits, and hedonic incentives on their inclination to maintain loyalty towards a certain brand or organization.

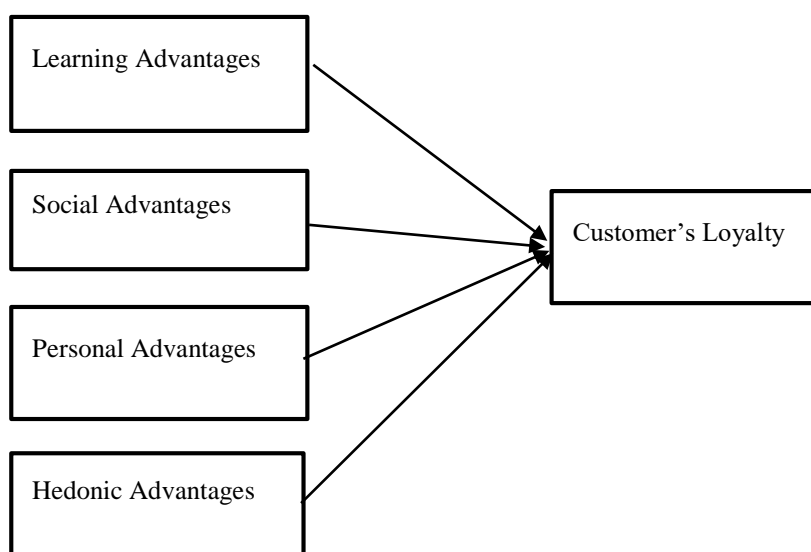


Figure 2

Table 9

Summation of the Model

R	R Square	Adj. R Sq.	Durbin-Watson
0.616	0.380	0.372	1.776

Table 9 demonstrate R square for the second model is 0.380. Learning, social, personal, and hedonic rewards explain 38.0% of customer loyalty shift, according to R square. There is no autocorrelation because Durbin-Watson is 1.776, which is between 1.5 and 2.5.

Table 10

The Analysis of Variance

F	Sig.
48.369	0.000

Results shown in Table 4.17 indicate that the model exhibits a strong fit. This is supported by the F value of 48.369, which exceeds the critical value of 5, and the significance level of 0.000, which is below the conventional threshold of 0.05.

*Table 11*

Regression Analysis

	Beta	Std. Error	Sig.	Tolerance	VIF	Remarks
Constant	0 .616	0 .271	0.023			
Learning Advantages	0 .186	0 .096	0 .044	0 .402	2.488	H6 accepted
Social Advantages	-0.170	0 .129	0 .188	0 .338	2.962	H7 not accepted
Personal Advantages	0 .119	0 .056	0 .034	0 .828	1.208	H8 accepted
Hedonic Advantages	0 .706	0 .064	0 .000	0 .733	1.365	H9 accepted

In Table 11, beta values show how customer loyalty changes when the independent variable changes while other factors never change. Customer loyalty increases dramatically with learning benefits. At  $P < 0.05$ , the coefficient for learning benefits is 0.186. Client loyalty is affected by learning advantages. Social advantages, with a coefficient of -0.170 and a significance threshold over 0.05, negatively affect customer loyalty. Social advantages affect client loyalty. The perceived benefit coefficient is 0.119 and the P value is small. Personal incentives substantially increase client loyalty. Due to their coefficient value of 0.706 and P value of 0.000, hedonic advantages increase client loyalty. Customer loyalty increases with hedonic rewards. No multicollinearity exists in table 11 since all variables have tolerance values over 0.1 and VIF below 10.

### Third Model

The influence that learning advantages, social advantages, personal advantages, and hedonic rewards have an impact on an individual's intent to make a purchase.

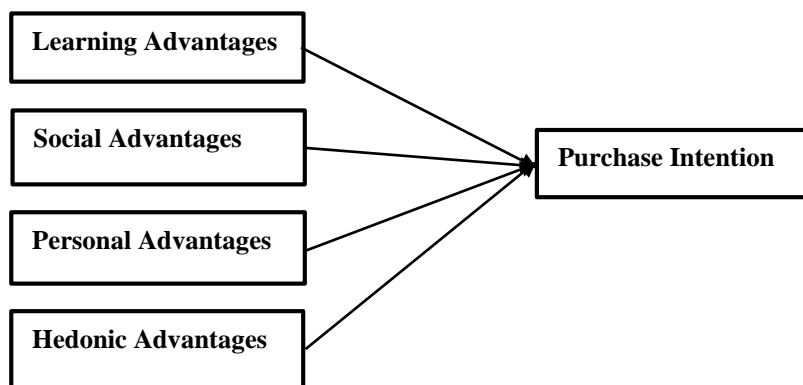


Figure 3

Table 12  
Summary of the Model

R	R Square	Adj. R Sq.	Durbin-Watson
0.429	0.184	0.173	1.844

Learning, social, personal, and hedonic gains influence purchase intention 18.4%, according to table 4.19's R square. In the range of 1.5 to 2.5, Durbin-Watson values suggest the absence of autocorrelation.

Table 13  
The ANOVA

F	Sig.
17.727	0.000

In table 4.20, F is larger than 5 and significance is less than 0.05, indicating that the model fits well.

Table 14  
Regression Analysis

	Beta	Std. Error	Sig.	Tolerance	VIF	Remarks
Constant	2.219	0.398	0.000			
Learning Advantages	0.171	0.141	0.226	0.408	2.452	H9 accepted
Social Advantages	0.467	0.189	0.014	0.341	2.929	H10 accepted
Personal Advantages	-0.530	0.082	0.000	0.829	1.207	H11 accepted
Hedonic Advantages	0.304	0.094	0.001	0.729	1.371	H12 accepted

Table 14's beta values indicate the degree to which an independent variable influences purchase intention while holding the other variables constant. Table 14 demonstrates learning advantages positively insignificantly affect purchasing intention. The learning advantages coefficient is 0.171 and the level of significance is more than 0.05 which demonstrates that learning does not influence buying intent. Social advantages positively affect purchasing intention since the coefficient is 0.467 and the level of significance is under 0.05. Social benefits influence buying intent. P value < 0.05, personal benefit coefficient -0.530. This shows that personal benefits greatly reduce purchase intention. Hedonic benefits and purchasing intention are positively and strongly associated (coefficient = 0.304, P = 0.001). This shows hedonic advantages boost buying intent. There is no multicollinearity in Table 14 because all variables have tolerance values above 0.1 and VIF below 10.

## **Discussions, Conclusion, and Limitations**

### **Discussion**

All three models estimated in this investigation have significant Adjusted R squared. The first model had a 20.9% adjusted R Squared. The independent variables explained 20.9% of the dependent variable's variation. The variables explained 37.2% of customer loyalty changes in the second model's Adjusted R squared. The third model had a low Adjusted R squared of 17.3%, explaining 17.3% of purchase intention changes. Learning, hedonic, and personal rewards were the only significant independent variables for all models. Social benefits couldn't explain the dependent variable's relative change. Social benefits were insignificant in all three scenarios.

The first hypothesis states that learning advantages boost consumer satisfaction. Regression analysis table 4.15 shows that learning benefits significantly affect customer happiness. It matches the earlier study (Alnawas & Aburub). Significant and high-beta influence. An increase of one unit in the learning benefit leads to a corresponding increase of thirty percent in the dependent variable. This finding offers empirical support for the theoretical framework and aligns with previous research outcomes. Thus, in Pakistan, smartphone app learning benefits increase client happiness. The study found no correlation between smartphone app socialization and customer satisfaction in our setting. It may be because individuals often use different apps for socializing and don't like branded apps. Similar findings were found in prior investigations (Alnawas & Aburub). Additionally, it is worth noting that a significant number of smartphone application providers in Pakistan primarily provide a chat functionality. However, enhancing the app's capabilities by including features such as tagging, socializing, and grouping tools might potentially lead to improved customer satisfaction.

The first model of our research investigates the correlation between consumer satisfaction and personal advantages. The findings show the personal integrative benefits have a substantial and positive influence on customer satisfaction, resulting in a significant increase of twenty percent per unit. Our fourth hypothesis shows that hedonic advantages significantly affect customer satisfaction. It is widely acknowledged that fun activities and entertainment increase consumer satisfaction. This matches past research. Increasing hedonic benefits increases customer satisfaction by 29% in our scenario.

Hypothesis five to eight is tested and findings are drawn in the second model. Table 4.18 shows that learning advantages boost consumer loyalty. Learning gains have a small but present impact. The previous researcher did not test this, therefore it can be explained as learning grows. When a person understands the organization's policies, processes, ease, and challenges, he cares for them and stays mute when he feels it's better to convey his thoughts. Organizations reward loyalty. The rationale is that learning benefits increase client loyalty.

Social benefits seem to have little effect on customer loyalty. Prior social networking site testing was positive. Social advantages and client loyalty were insignificant in our results. In section 5.2.2, the lack of sociability in branded smartphone apps may explain this. The construct also states that users may not want social benefits because they can utilize specific social media apps. The seventh hypothesis examines how personal integrative advantages affect consumer loyalty. It shows that increasing personal integrative benefits will dramatically impact consumer loyalty. Decreased it will lower loyalty. This outcome consistently matches past research on the topic.

Hedonic benefits, as described in earlier sections, boost consumer loyalty. Without it, client loyalty suffers. The use of happy applications, gamification elements, joke-telling, and humorous help has been shown to positively influence an individual's propensity to support the sponsor of the application. This finding demonstrates a consistent outcome in comparison to the prior research. Nine hypothesis explores the association between consumer intent to buy a product and learning gains. Table 4.21 details these results. Results suggest that learning advantages have little effect on customer propensity to buy. This contradicts Alnawas & Aburub's findings, which found a positive correlation. The reasons are varied, but as a buyer learns about a product, he learns about ours and our competitors. Thus, it makes customers compare and strive to acquire the most for the least. So, we failed to prove hypothesis nine.

The impact of social benefits on purchase intentions is important. Social relationships utilizing a similar product increase a person's inclination to utilize it. With the previous research, this is also insignificant. We found that social advantages affect



purchasing intentions, contrary to earlier research. The hypothesis tested the favorable link between personal advantages and buying intentions. However, statistical studies suggest that personal integrative advantages negatively affect buying intentions. In contrast to the prior study. Two reasons are possible. First, the prior study used a semantic-type scale, while this one used a Likert scale. Second, when a person thinks he understands everything about a product, he tries other substitutes to gain additional knowledge, skills, and competence. Thus, the latest study contradicts the prior one. Positive hedonic advantages are also associated. This relates to the prior study. Increased hedonic advantages will promote consumer repurchase.

No single app was researched, but we collected data on all Pakistani-specific apps. It has pros and cons. Since the majority is an authoritative principle, not separating the industry and apps will increase the construct's generalizability. The respondents provided generic accumulative proof to be used for a wider audience to help app developers succeed in the marketplace. (2) The benefits of these rewards on consumer satisfaction, loyalty, and purchase intentions may be readily obtained and examined via comprehensive data. There are two main constraints associated with this strategy. (1) The inclusion of specificity enhances the trustworthiness of a particular application; nevertheless, the absence of a well-established application market posed challenges in terms of directing attention toward unique applications. (2) The results were generated using generic applications. The use of industry-specific incentive segregation has the potential to enhance dependability; nevertheless, it is important to acknowledge that this approach may require a significant investment of effort and might potentially compromise the generalizability of findings. It is a prevailing practice to allocate substantial resources towards the development and promotion of smartphone applications, while comparatively less resources are dedicated to customer research. This further substantiated our determination to refrain from singling out a certain application or enterprise. This offers a theoretical basis for doing research.

### **Implications of the Study**

This research will assist smartphone app makers in providing a pleasant user experience. Customers demand more knowledge from apps and don't want to be bored, hence hedonic features are needed. Smartphone apps' gamification, secret prizes, and benefits must be clear to customers to satisfy them and ensure they buy from us again. Marketers must analyze market segments and groups by criteria. Thus, various age groups can have separate apps. Young people use smartphones most, thus separate apps should be developed, controlled, and distributed. This study's theoretical contribution is that several smartphone app benefits increase consumer loyalty. Previously unexplored, this work will fill a gap in the literature and add to knowledge. This study

also found no correlation between social advantages and customer happiness, loyalty, or purchasing intentions.

### **Study Limitations and Future Research**

The research has a significant number of limitations, the most significant of which is that answers were only obtained from Lahore because of financial and time restrictions. As the law of big numbers requires a sample size that represents the population. Large sample sizes are typical of the population, and their means should be closer to the population mean (Saunders & Lewis, 2009). For more accurate results, a higher sample size is needed. Additionally, samples from different Pakistani cities should be considered to assess customer benefits from smartphone apps. The study analyzes events once, not throughout time to assess their effects. To track individual debt over time, a longitudinal study is recommended.

### **Conclusion**

The empirical evidence shows a substantial influence of smartphone applications on customer satisfaction and loyalty. Hence, it is imperative to enhance the benefits offered to foster client loyalty and bolster their purchasing intents, with particular emphasis on maximizing the utility derived from hedonic benefits.

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