

# GLOBAL JOURNAL

OF MANAGEMENT AND BUSINESS RESEARCH: E

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## Marketing

Relationship between Consumer  
Effectiveness of Social Media

Highlights

Organized Versus Traditional  
Impact of Salesmen Personality

Discovering Thoughts, Inventing Future

VOLUME 14

ISSUE 8

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# GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: E MARKETING

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MARKETING

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# Identification of the Key Factors Affecting the Adoption of Mobile Phone Gaming: A Study in the Context of Bangladesh

By Md.Farijul Islam, Md. Mostafizur Rahman, Md. Mainuddin  
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*Hajee Mohammad Danesh Science & Technology University, Bangladesh*

**Abstract-** In recent years the use of mobile phones and smart phones have become more widespread and continue to grow significantly and almost half of the population of the earth now use mobile communications. The mobile telecommunications industry is a key driver of both economic and social development across the globe and it is one of the most transformational industries in the world today, enriching the daily lives of almost half of the world's population and mobile device is becoming part and parcel in our daily life and plays a pivotal role in passing time and recreation device for people specially young generation. This study investigates the identification of the key factors affecting the adoption of mobile phone gaming in the context of Bangladesh.

**Keywords:** mobile phone gaming, adoption, usefulness, personal attitude, concentration, telecommunication, 3G, smart phones.

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IDENTIFICATION OF THE KEY FACTORS AFFECTING THE ADOPTION OF MOBILE PHONE GAMING A STUDY IN THE CONTEXT OF BANGLADESH

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# Identification of the Key Factors Affecting the Adoption of Mobile Phone Gaming: A Study in the Context of Bangladesh

Md.Farijul Islam<sup>α</sup>, Md. Mostafizur Rahman<sup>σ</sup>, Md. Mainuddin<sup>ρ</sup> & A. N. M. M. H. Chowdhury<sup>ω</sup>

**Abstract-** In recent years the use of mobile phones and smart phones have become more widespread and continue to grow significantly and almost half of the population of the earth now use mobile communications. The mobile telecommunications industry is a key driver of both economic and social development across the globe and it is one of the most transformational industries in the world today, enriching the daily lives of almost half of the world's population and mobile device is becoming part and parcel in our daily life and plays a pivotal role in passing time and recreation device for people specially young generation. This study investigates the identification of the key factors affecting the adoption of mobile phone gaming in the context of Bangladesh. The nature of the research is conclusive in form of descriptive with the help of collecting primary data via personal face to face interview where non probability convenience sampling were used and primary data were analyzed by descriptive statistics, correlation, ANOVA, multiple regression, factor analysis (principal component analysis). The result of the study shows that all the variables are correlated with and they have significant influence on the adoption of mobile phone gaming. The main findings of the study reveals that first three factors easiness, usefulness, enjoyment are most influencing factors for mobile phone gaming adoption and subsequent factors are attitude, intention, behavior, and concentration. The contribution made by the study is give suggestions for the operators of mobile phone to consider the above mentioned factors while designing their market offerings for customers to get the maximum benefit by satisfying mobile phone gaming users in Bangladesh. Marketers should, however, carefully consider the key factors that influence the adoption and performance the operations of mobile phone gaming.

**Keywords:** mobile phone gaming, adoption, usefulness, personal attitude, concentration, telecommunication, 3G, smart phones.

## I. INTRODUCTION

Little research has been carried out in the area of mobile phone industry in the context of Bangladesh. Although some researchers have paid attention in the area, it is an endeavor to investigate

the factors that influence the adoption of mobile phone gaming. Recent years the use of mobile phones and smart phones has become more widespread and continues to grow significantly. The rapid growth of third generation (3G) mobile technology has radically changed the lifestyle of the young generations. 3G mobile technology incorporates voice data and Internet access, making smart phones similar to personal computers. The mobile telecommunications industry is a key driver of both economic and social development across the globe. It advances technology, enables new business models that could not have existed without it and improves the efficiency of existing ones, creating jobs in the process and providing an important source of funding for governments. It extends the reach of healthcare, education and finance in developing countries. In doing so, it connects us all more closely, allows us greater access to information and the world around us and empowers the vulnerable. The mobile industry is one of the most transformational industries in the world today, enriching the daily lives of almost half the world's population. Almost half the population of the earth now uses mobile communications. There are still many adults and young people who would appreciate the social and economic benefits of mobile technology but are unable to access it, highlighting a huge opportunities for future growth and a challenge to all players in the industry ecosystem to expand the scope of products and services to tap this demand. It is obvious that the next few years will see continued growth with a further 700 million subscribers expected to be added by 2017 and the 4 billion mark to be passed in 2018. This growth is mirrored by strong mobile connections growth, to almost 7 billion connections in 2012, as many consumers have multiple devices or use multiple SIMs to access the best tariffs, while firms in many industry sectors roll out M2M applications to boost their own productivity and tap into new markets. Despite challenging economic headwinds in many regions, the market is expected to grow even more strongly on the dimension of connections over the next five years, with 3 billion additional connections expected to be added between 2012 and 2017, a growth rate of 7.6% p.a. Mark Page (2013) also suggested that 3.2 billion people of the 7 billion on earth benefit from having a mobile phone. A further 700 million subscribers

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are expected by 2017, but this still leaves a huge potential for further growth and the headline growth in number of connections hides an important shift taking place in the types of connections that make up the total. In terms of numbers of connections, 2G technology – which provides digital quality voice, messaging and low bandwidth data connections – still accounts for the majority of global connections in 2012, 5 billion of the 6.8 billion totals. However, the growth in connections will be driven by increased uptake of 3G and 4G connections, which are forecast to increase from 26% to 53% of global connections over the period 2012 to 2017. In Bangladesh, there is a growing number of wireless technology users in the area of M-commerce. There are more consumers who have a mobile phone than those who have a personal computer. Despite the rapidly growing number of mobile phone users in Bangladesh, M-commerce is a relatively new phenomenon in Bangladesh compared to other markets in Europe, the U.S., and the Asia Pacific. Currently, there are six mobile phone operators offering their services to customers in Bangladesh. GrameenPhone (GP) owned by Telenor (62%) and Grameen Telecom (38%) is the largest and the fastest growing cellular service provider in Bangladesh. BanglaLink is the second largest cellular service provider. It is a wholly owned subsidiary of Orascom Telecom. Robi is the 3rd largest cellular service provider in Bangladesh. It is a joint venture between Telecom Malaysia Sdn Bhd of Malaysia (70%) and a local company A.K. Khan & Company (30%). The fourth largest cellular service provider in Bangladesh is Warid Telecom International Ltd. Warid Telecom is a wholly owned subsidiary of Warid Telecom International LLC. Abu Dhabi. The other two mobile phone operators in Bangladesh are Citycell and Teletalk Bangladesh Ltd. Before moving on, a clear understanding of what mobile gaming actually is needs to be established. Liang and Yeh (2011, p. 188) define mobile game as a video game played on mobile devices, including mobile phones, smart phones, PDA's or handheld computers. However, as handheld gaming has existed for such a long time in the form of Game boys, Tetris and other small devices, the phenomenon is not very new anymore. Thus, the mobile gaming is understood as the form of gaming introduced by the new smart phone categories. Following this interpretation, mobile games are purchased or downloaded from online digital application stores, without ever taking any physical forms in the distribution channel. Liu and Li (2011) showed that use context and cognitive concentration which is essentially the same as flow are significant factors of mobile gaming adoption in the version of TAM they used. Liu from China focused on the adoption progress and performance at a minimum cost. The results of mobile learning in solving puzzles. These studies showed a significant improvement in terms of learning concentrated on the use of SMS and MMS in the

learning outcomes and satisfaction compared to the traditional environment. However, the researcher ignored the important factors, such as affordability and pedagogy. As to more recent studies with an oriental focus, especially on mobile industry, we can mention Lu et al. (2007), who studied whether a TAM-based model is applicable in the Chinese context. Originally introduced by Fred Davis as early as in the 1980s, the technology acceptance model sought to measure the willingness of people to accept and adopt new information technology innovations of that era, such as the electronic mail systems (Davis 1989). As to more recent studies with an oriental focus, especially on mobile industry. According to Volery and Lord, student adoption of university has introduced mobile learning by sending technology is based on the satisfaction derived from messages through SMS. Using the device, flexibility, self-confidence, self-efficacy and participation. Ismail et al. (2009) conducted learning in the United States; these factors proved to be action research on the adoption of SMS among long distance education students in University Sains Malaysia. The learning characteristics and design were examined based on communication, convenience, enjoyment, satisfaction, quality, pace and reliability. Mariga (2003) posits that perceived usefulness, perceived ease of use, trust, and enjoyment is the significant determinant for the adoption of M-commerce services. Huei (2004) suggests that perceived usefulness, perceived ease of use, perceived risk, and cost is the influencing factors for the adoption of M-commerce. Economic and infrastructure issues can influence the rate of m-commerce adoption (Fraunholz & Unnithan, 2004). Cultural differences can potentially play a significant role in m-commerce adoption (Hards et al., 2005). The main obstacle toward personalization is privacy and security, which can negatively impact the prevalent use of such applications. So far, there has not been an approach focusing specifically on the wireless/mobile user (Panayiotou & Samaras, 2004). Brunner and Kumar (2005) suggest that perceived enjoyment may help explain consumer acceptance of handheld Internet devices better than the original TAM constructs alone. Perceived enjoyment, usefulness, and expressiveness influence the intention to use mobile services (Nysveen et al., 2005). Lu, Yu, Liu and Yao (2003) observe that complexity, facilitating conditions, social influences, and trust factors influence user acceptance of Internet via mobile devices. Luarn and Lin (2005) also extend TAM by adding trust, self-efficacy, and transaction cost as determinants of usage intention. Furthermore, systems quality and social influence also contribute to the adoption of mobile services (Kleijnen & Wetzels, 2004). Lee and Benbasat (2003) recommend the multi-tasking nature of device usage as well as users' limited attention as two of the many essential factors affecting m-commerce adoption. Other technical factors that can

impact m-commerce adoption include user interface limitations, slow network connections, information security, or even the threat of government regulations (Wen & Mahatanankoon, 2004). Sarker and Wells (2003) find that users' positive experience with mobile usage (i.e., functional, psychological, and relational outcomes) influence adoption decisions and behaviors. They suggest that cultural origin influences individuals' patterns of mobile technology usage. Bouwman et al. (2007) further suggest the importance of physical, cognitive, security, and economic factors when delivering bundled mobile services to consumers. Apart from the social uses outlined, earlier studies by Leung and Wei (2000) indicate that utilitarian uses of the mobile phone are more frequent and instrumental motives are much stronger than social uses. Various types of business deals including cross country transactions are being conducted on mobile phones daily. The two fundamental attributes of the mobile phone which has lead to its flourished usage are mobility and immediate access. However, it is this characteristic which has extended its usage from a traditional voice communication to other value added services like games, internet, banking, payments and informational services, perceived ease of use, (PEOU) is the degree to which a person believes that using a particular system will be free of effort. Perceived ease of use and perceived usefulness are two key components that have made the technology acceptance model one of the most influential research models related to understanding information technology usage. PU in the adoption of mobile services is defined in a broader context to include how well consumers believes mobile services can be integrated into their daily activities. Various researchers have shown that perceived usefulness can also relate to the increased performance of a non-job related task that occurs outside of an organizational. Tseng, Hsu and Chuang (2012) found that PEOU and PU made a significant positive impact on attitudes towards website use. PEOU and PU have a positive impact on consumer online shopping; future plans to use online shopping (Koufaris, 2002), Enjoyment Studies have found that user entertainment plays a significant role in the success of certain technology. Research has shown that the adoption and satisfaction levels of information systems and products are associated with user perceptions of entertainment provided by the technology (Kim et al., 2009). The most popular reason for the adoption of e-books by university students was for enjoyment (reading pleasure and leisure) over academic purposes. Similarly, enjoyment has been shown to be a key to player usage of online gaming. Involvement user involvement has been shown to be a key determinant of technology usage. Research by Swanson (1974) indicated that high user involvement ultimately increases frequency of use. The core research problem to be addressed in this study is whether the

factors considered by literature review actually influence the adoption of mobile phone gaming among users in Bangladesh. The specific research objective is to investigate and identify the key factors and most influencing factors that users consider when they adopt the mobile phone gaming in the context of Bangladesh.

## II. METHODOLOGY

### a) Objectives of the study

The objective of the study was to identify the various key factors that affect the adoption of mobile phone gaming. More specifically, the study aimed to achieve the following specific research objectives:

- To determine whether the key factors are correlated with each other.
- To determine whether the factors are appropriate for conducting the statistical analysis.
- To determine whether easiness, usefulness, and enjoyment are the most influencing factors leading to subsequent factors that influence the mobile phone gaming adoption.

### b) Research Question

Do the key factors affecting the adoption of mobile phone gaming?

### c) Hypothesis of the study

$H_0$ : Key factors do not affect the adoption of mobile phone gaming.

$H_1$ : Key factors affect the adoption of mobile phone gaming.

## III. DISCUSSION AND ANALYSIS

### a) Factor analysis Model

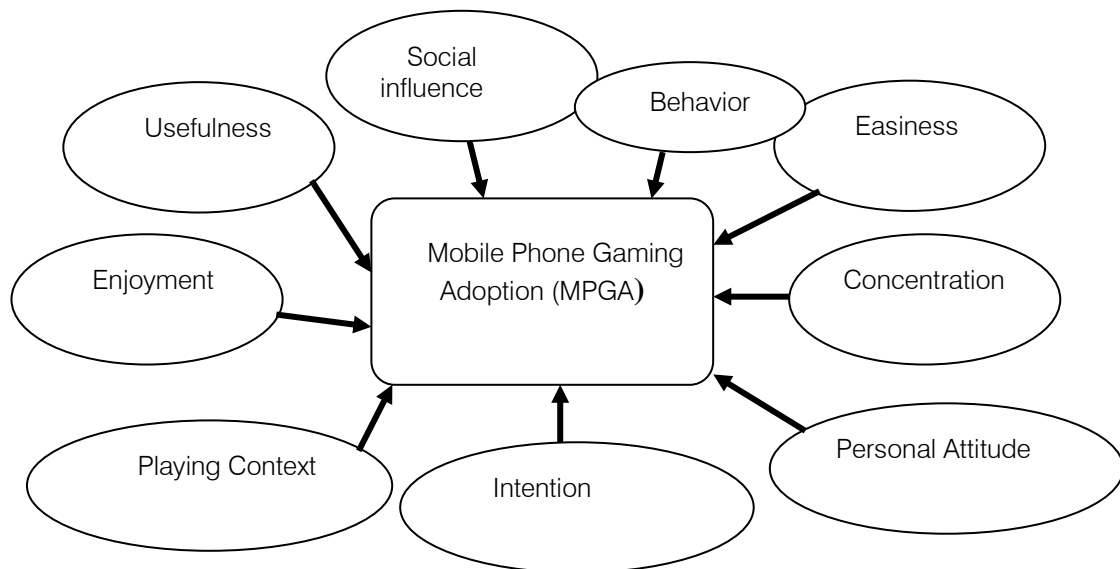
An econometric model is developed for the study in order to testify the relationship between the dependent and independent variables and to test the hypotheses relevant for the study. This is an integrated model, which is proposed on the basis of the Mobile phone gaming adoption. Mobile phone gaming adoption as a function of mobile adoption can be depicted in the form of the following equation.



*Table 1* : A brief of the methodology of the study

Research type/Design	Conclusive research in form of descriptive.
Research Instrument	Survey questionnaire.
Data Source	Primary data for statistical analysis and secondary data for literature review and the sources are Internet, journals, books, magazines etc.
Data collection mode	Survey in the form of Personal face to face interview.
Measurement Technique/Basic scale design	Non comparative scaling techniques. Itemized Ranking scale in the form of 5 point likert scale. (1= Fully Disagree, 2= Disagree, 3= Undecided, 4= Agree, 5= Fully Agree)
Sample Size	The target sample size 110 and realized sample size is 102 and the response rate is $102 \times 100 / 110 = 92\%$ .
Sampling Technique	Non probability and its specific form like convenience sampling.
Sample Location	Rangpur division specially Dinajpur and Rangpur district of Bangladesh.
Time	June-Nov, 2014.
Reliability and Validity test	Cronbach's Alpha for internal consistency reliability, KMO Bartlett's Test of Sphericity for sample data adequacy for factor analysis.
Data analysis tools	Descriptive statistics, correlation, One way ANOVA, multiple regression, factor analysis (principal component analysis).

*Conceptual framework of the study*



*Figure 01:* Proposed MPGA Model

$$Y(\text{MPGA}) = \alpha_0 + \beta_1(\text{Ea}) + \beta_2(\text{Us}) + \beta_3(\text{En}) + \beta_4(\text{SI}) + \beta_5(\text{Co}) + \beta_6(\text{PC}) + \beta_7(\text{PA}) + \beta_8(\text{In}) + \beta_9(\text{Be}) + \varepsilon$$

$$Y(\text{MPG}) = 1.985 + 0.255(\text{Ea}) + 0.012(\text{Us}) - 0.001(\text{En}) - 0.233(\text{SI}) + 0.284(\text{Co}) + 0.049(\text{PC}) + 0.056(\text{PA}) + 0.050(\text{In}) - 0.084(\text{Be}) + \varepsilon$$

where:  $\alpha_0$ -intercept, Ea- Easiness, Us- Usefulness, En- Enjoyment, SI- Social Influence, Co- Concentration, PC- Playing Context, PA – Personal Attitude, In- Intention, B- Behavior and  $\varepsilon$  -coefficient of error term



**Table 2:** Demographic profiles of the respondents

Variable	Frequency	%
<b>Age( Years)</b>		
10-20	10	9.8
20-30	83	81.4
30-40	2	2.0
40- above	7	6.9
Total	102	100.0
<b>Gender</b>		
Male	81	79.4
Female	21	20.6
Total	102	100.0
<b>Profession</b>		
Student	87	85.3
Teacher	4	3.9
Employee	7	6.9
Other	4	3.9
Total	102	100.0
<b>User Category</b>		
Expert	77	75.5
Novice	23	22.5
Total	102	100.0
<b>Education</b>		
Below SSC	5	4.9
SSC	4	3.9
HSC	1	1.0
Bachelor	79	77.5
Masters& Above	13	12.7
Total	102	100.0

**b) Demographic Profile of the Respondents**

Table 2 shows that out of total samples about 80% are male and 20% are female. 10% are below 20 years, 81% are 20 to 30 years 2% are 30-40 years and only 7 % are more than 40 years old. Most of mobile phone games users are students (85%), either employees or businessmen (7%), 4% are engaged in teaching. Educational status of the respondents shows that most of graduates and post graduate person play mobile phone gaming (78% and 12% respectively). This data indicates that higher educated people who have

completed or about to be completed play mobile phone game. Data also shows that (75%) users are expert and 25% are new users in playing mobile phone game.

**c) Reliability Analysis, Means and Standard Deviations of the Study Variables**

All items used a 5 (Five) points Likert scale as (1= Fully Disagree, 2= Disagree, 3= Undecided, 4= Agree, 5= Fully Agree. The Cronbach's alpha reliability test has been used to identify the validity of items used in survey. According to Hendrickson et al (1993) and McGraw and Wong (1996) the alpha of a scale should be greater than 0.70 for items to be used together as a scale. Finalize the item validity. As per shown in table 3 that all dimensions have appropriate reliability. Therefore minimum 0.700 coefficient alpha values accepted for the reliability of the variable used, all were found to show satisfactory Cronbach's value of between 0.668 and 0.762 (refer Table 3). Thus, all the Variables are considered reliable. In addition, the mean value for each of the ten components of Mobile phone gaming varied from 2.5833 to 3.6971. The standard deviation for these components ranges from 0.74627 to 1.16696. Mobile adoption had a mean value of 3.71 with a standard deviation of 1.10 whereas easiness had a mean of 3.70 and standard deviation of 0.75.

**d) Multiple Regression Analysis**

The first table of interest is the Model Summary table. This table provides the R, R<sup>2</sup>, adjusted R<sup>2</sup>, and the standard error of the estimate, which can be used to determine how well a regression model fits the data.

The R column represents the value of R, the multiple correlation coefficients. R can be considered to be one measure of the quality of the prediction of the dependent variable; in this case mobile game adoption. A value of 0.410 indicates a good level of prediction. The R Square column represents the R<sup>2</sup> value (also called the coefficient of determination), which is the proportion of variance in the dependent variable that can be explained by the independent variables. Technically, it is the proportion of variation accounted for by the regression model above and beyond the mean model. It is observed from table 4 that the value of R<sup>2</sup> is 0.176 that our independent variables explain 17.60 % of the variability of our dependent variable.

Thus, the regression equation of this study is: Y (MPG) = 1.985 + 0.255(Ea) + 0.012 (Us) - 0.001(En) - 0.233(SI) + 0.284 (Co) + 0.049 (PC) + 0.056 (PA) + 0.050(In) - 0.084 (Be) + ε.

**Table 3:** Reliability Analysis, Means and Standard Deviations of the Study Variables

Variables	Number of items	Cronbach's Alpha	Mean	Std. Dev.
Social Influence	3	0.706	2.5892	0.85514
Concentration	3	0.707	3.5667	0.80325
Playing context	2	0.758	3.5343	0.97813
Personal attitude	2	0.668	3.1716	1.07283
Intention	1	0.686	3.0980	1.12144
Behavior	2	0.707	2.5833	1.16696
Adoption	1	0.762	3.7157	1.10245
Easiness	3	0.714	3.6971	0.74627
Usefulness	2	0.705	3.4461	0.96192
Enjoyment	2	0.675	3.2696	1.04992

The regression equation indicates that most of the independent variables and dependent variable (MPGA) mobile adoption are positively related. Moreover, in Table 6, the collinearity statistics reveal that the tolerances of all the independent variables are greater than 0.1 and that the Variance Inflation Factors (VIF) are all less than 10. The tolerance shows the amount of correlation between the predictor and all the other remaining predictors. Variance inflation factors reflect the degree to which the standard error of the predictor was increased due to the predictor's correlation with the other predictors in the model. As the tolerance value < 0.1 or the VIF value > 10 is an indication of collinearity, there is not collinearity in the model of this study as can be seen in the result shown

in Table 6. Unstandardized coefficients indicate how much the dependent variable varies with an independent variable, when all other independent variables are held constant.

The F-ratio in the ANOVA table 5 tests whether the overall regression model is a good fit for the data. The table shows that the independent variables statistically significantly predict the dependent variable. As  $F(9, 92) = 2.820$ ,  $p < .05$ , this model is significant. In addition, Table 5 is the result of ANOVA, which shows the value of  $F(9, 92) = 2.820$  and it is significant at  $p$  value  $0.006 < 0.05$ . As a result, overall, the regression model is deemed to accurately predict mobile adoption towards mobile phone gaming.

**Table 4:** Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.419a	.176	.095	1.04882	.176	2.177	9	92	.031

a. Predictors: (Constant), Adoption, Usefulness, Playing Context, Intention, Easiness, Concentration, Enjoyment, Social Influence, Behavior, Personal Attitude.

Dependent Variable: mobile game adoption

**Table 5:** Regression Analysis Result between Independent Variables and Dependent Variables

ANOVA <sup>b</sup>	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.541	9	2.949	2.820	.006 <sup>a</sup>
	Residual	96.214	92	1.046		
	Total	122.755	101			

a. Predictors: (Constant), Behavior, Playing Context, Usefulness, Easiness, Concentration, Enjoyment, Social Influence, Intention, Personal Attitude

Table 6: Summary of Regression Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.985	0.659		3.010	0.003		
Easy to use	0.255	0.110	0.228	2.317	0.023	0.883	1.133
Usefulness	0.012	0.097	0.013	0.125	0.901	0.841	1.189
Enjoyment	-0.001	0.087	-0.002	-0.016	0.987	0.804	1.243
Social Influence	-0.233	0.090	-0.279	-2.582	0.011	0.729	1.371
Concentration	0.284	0.102	0.277	2.789	0.006	0.863	1.159
Playing Context	0.049	0.080	0.059	0.611	0.543	0.926	1.080
Personal Attitude	0.056	0.119	0.063	0.476	0.635	0.481	2.080
Intention	0.050	0.127	0.051	0.396	0.693	0.513	1.948
Behavior	-0.084	0.097	0.104	-0.863	0.390	0.591	1.692

a. Dependent Variable: mobile game adoption

Table 7: Correlation Matrix

		Ea	Us	En	SI	Co	PC	PA	In	Be
Correlation	Ea	1.000	.290	.213	.182	.280	.005	.272	.322	.178
	Us	.290	1.000	.328	.434	.313	.020	.342	.225	.200
	En	.213	.328	1.000	.377	.405	.237	.583	.364	.303
	SI	.182	.434	.377	1.000	.308	-.131	.454	.246	.442
	Co	.280	.313	.405	.308	1.000	.141	.222	.151	.111
	PC	.005	.020	.237	-.131	.141	1.000	.056	.010	-.096
	PA	.272	.342	.583	.454	.222	.056	1.000	.554	.435
	In	.322	.225	.364	.246	.151	.010	.554	1.000	.565
	Be	.178	.200	.303	.442	.111	-.096	.435	.565	1.000
	Sig. (1-tailed)	Ea		.002	.016	.034	.002	.481	.003	.000
Us		.002		.000	.000	.001	.419	.000	.011	.022
En		.016	.000		.000	.000	.008	.000	.000	.001
SI		.034	.000	.000		.001	.095	.000	.006	.000
Co		.002	.001	.000	.001		.079	.013	.065	.133
PC		.481	.419	.008	.095	.079		.289	.459	.169
PA		.003	.000	.000	.000	.013	.289		.000	.000
In		.000	.011	.000	.006	.065	.459	.000		.000
Be		.037	.022	.001	.000	.133	.169	.000	.000	

a. Determinant = .086

#### e) Analysis of correlation matrix

Correlation matrix is used to check the pattern of relationships among variables. It is seen that the majority of the values are greater than 0.05. so the relationships are correlated among variables. The value

of the determinants of the correlation matrix is .086 which is greater than the necessary value of 0.00001. Therefore multi colinearity is not a problem for these data. To sum up, all questions in the survey are correlate fairly well and none of the correlation

coefficients are particularly large . So there is no need to consider eliminating any questions at the research.

f) *KMO and Bartlett's Test*

The table 8 shows that the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity. The KMO statistic varies between 0 and 1. A value of 0 indicates that the sum of partial correlation is large relative to the sum of correlations. Hence factor analysis is likely to be inappropriate. A value close to 1 indicates that patterns of correlations are relatively compact and so factor analysis yields distinct and reliable results. Kaiser (1974) recommends accepting values greater than 0.5. Furthermore values between 0.7 and 0.8 are good. So our Kaiser-Meyer-Olkin Measure of Sampling Adequacy test is 0.752 or 75% is reliable and acceptable for further computation. So it is clear that factor analysis is appropriate for these data. Significance value also acceptable. Bartlett's Test of

Sphericity tests the null hypothesis that the original correlation matrix is an identity matrix. For factor analysis we need some relationships between variables and if the R matrix were an identity matrix then all correlation coefficients would be zero. We see a significant value less than 0.05. A significant test tells that R matrix is not an identity matrix that means there are some relationships between variables. For these data Bartlett's test is highly significant ( $p < 0.05$ ), and therefore factor analysis is appropriate for this study.

Table 8: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.752
Bartlett's Test of Sphericity	Approx. Chi-Square 238.008
	df 36
	Sig. 0.000

Table 9: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	3.332	37.023	37.023	3.332	37.023	37.023	2.328	25.867	25.867
	1.289	14.326	51.349	1.289	14.326	51.349	2.124	23.595	49.461
	1.065	11.828	63.178	1.065	11.828	63.178	1.234	13.716	63.178
	0.899	9.986	73.164						
	0.671	7.453	80.617						
	0.585	6.500	87.118						
	0.499	5.546	92.664						
	0.372	4.134	96.798						
	0.288	3.202	100.000						
Extraction Method: Principal Component Analysis.									

g) *Analysis of Total Variance Explained*

Principal Component Analysis: The correlation matrix of all 9 variables have been further subjected to principal component analysis. The factor matrix is obtained in the principal component analysis has also been further subjected to Varimax Rotation. The Eigenvalue is the total variance explained by each factor. The Eigen values, the percentage of total variance, and rotated sum of squared loadings have

been shown in Table 9. Any factor that has an eigenvalue less than one does not have enough total variance explained to represent a unique factor and is therefore disregarded. The Eigenvalues associated with each factor represent the variance explained by that particular linear component and SPSS displays the eigenvalues in terms of the percentage of variance explained. An examination of Eigen values has led to the

retention of three factors. These factors have accumulated for 37.%, 14.32%, and 11.82 % of variation respectively. This implies that the total variance accumulated for by all three factors is 63.17% and remaining variance is explained by other factors.. So factor 1 explains 37% of total variance. It is clear that first few factors explain relatively large amounts of variance where as subsequent factors explain a small amount of variance.

Table 10: Communalities

	Initial	Extraction
Easiness	1.000	.288
Usefulness	1.000	.585
Enjoy	1.000	.659
Social influence	1.000	.622
Concentration	1.000	.621
Playing context	1.000	.813
Personal attitude	1.000	.682
Intention	1.000	.720
Behaviour	1.000	.697
Extraction Method: Principal Component Analysis.		

Table 11: Component Matrix

	Component		
	1	2	3
Easiness	.788		
Usefulness	.720		
Enjoy	.685		.406
Social influence	.676		
Concentration	.644	-.481	
Playing context	.594		-.454
Personal attitude	.489		
Intention		.734	.520
Behaviour	.506	.508	
Extraction Method: Principal Component Analysis.			
a. 3 components extracted.			

Scree Plot

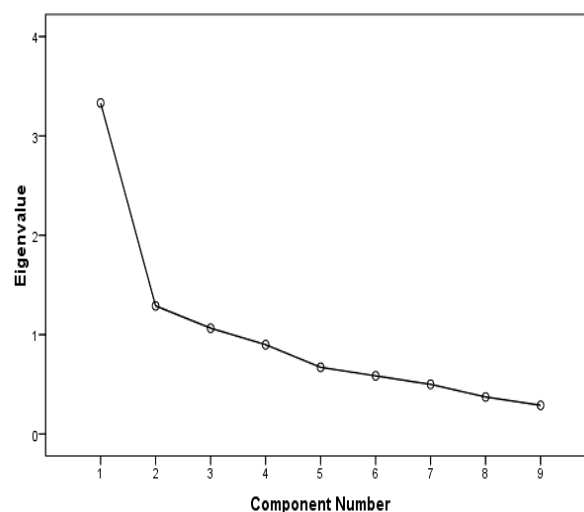


Figure 2: Scree Plot

#### h) Analysis of Communalities and Component Matrix

The communality is the proportion of variance accounted for by the common factors of a variable. Communalities range from 0 to 1. Zero means that the common factors do not explain any variance and one means that the common factors explain all the variance. The communalities of the column leveled extraction reflect the common variance in the data structure. It is observed that 28.8 percent of the variance associated with question 1 is common or shared variance. It is seen from the result that relatively high numbers that is a good result. The component matrix indicates how each item of the analysis correlates with each of the three retained factors. Negative and positive correlations carry the same weight. The component matrix contains the loadings of each variable onto each factor. At this stage SPSS has extracted 3 factors. All loadings less than .40 is suppressed in the output that's why there are blank spaces for many of the loadings.

#### i) Scree Plot

A Scree plot is a graph that plots the total variance associated with each factor. It is a visual display of how many factors there are in the data. It is seen that although there are 9 principle components only three factors have eigenvalues over one. It is expected that three principle components in the data. The curve indicates the inflexion on the curve.

#### j) Rotated Component Matrix

The Rotated component matrix indicates how each item correlates with each factor. The rotation of the factor structure clarified things considerably. There are three factors and variables load very highly onto only one factor.

Table 12: Rotated Component Matrix

	Component		
	1	2	3
Intention	.841		
Behavior	.804		
Personal attitude	.731		
Usefulness		.750	
Concentration		.740	
Social influence		.628	
Easiness		.492	
Enjoy	.478	.482	.445
Playing context			.901
Extraction Method: Principal Component Analysis.			
Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

#### IV. CONCLUSION

Modern and innovative technology offer lots of blessings for human betterments, a smart phone is one of them that is a mobile phone device which offers more advanced computing ability and Internet connectivity than traditional mobile phones. The advanced functionalities of a smart phone enable access to the Internet and the use of various applications such as mobile gaming, as well as phone calling and text messaging. In This study tested the correlations among mobile phone gaming adoption and some influencing factors such as behavior, playing context, usefulness, easiness, concentration, enjoyment, social Influence, intention, personal attitude in of Bangladesh. The study also revealed that the first three factors are the most important factors these influence the most adoption of mobile gaming. We see correlation matrix to check the pattern of relationships. We see that the majority of the values are greater than 0.05. So the relationships are correlated among variables. The result of the study also highlights the pattern of relationship among variables that were proved by the analysis. The contribution made by the study is give suggestions for the operators of mobile phone to consider the above mentioned factors while designing their offerings for customers to get the maximum benefit by satisfying mobile phone gaming users in Bangladesh. Marketers should, however, carefully consider the key factors that influence the adoption and performance the operations of mobile phone gaming. Despite several meaningful findings, the study is not without limitations. Above all, the results are limited in terms of generalizability because the samples used in the current study did not cover a wide range of demographics in terms of age, ethnicity, employment, income, and education. Thus, future research is recommended to further investigate

determining factors more closely by including extended demographics variables.

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*GJMBR - E Classification : JEL Code : M39*



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*Strictly as per the compliance and regulations of:*



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**Abstract** - The main aim of this study was to examine the relationship between service quality, customer satisfaction and customer loyalty in the context of a Saudi Arabian Automobile Company (SAACO). Spearman correlation analysis indicated that all quality dimensions have significant positive effect on both customer satisfaction and customer loyalty. A questionnaire was personally distributed to 140 customers and 117 were returned. The study suggests that in order for the automobile companies to keep up with the competition, it is essential to conduct periodic quality assessments to proactively identify and fix any gaps between customers' expectations and actual perceived service quality. Continuous improvement in service quality is necessary to increase customer satisfaction, loyalty, retention, market share and profitability.

## I. INTRODUCTION

In the past, the main task of automobile service centre's was performing regular maintenance and fixing cars; however, this no longer applies in high competitive markets. A common response to the question of what differentiates one car dealer from another often revolves around customers' view of service quality. Unlike manufacturing firms, wherein quality of products is objectively judged by whether it meets technical specifications as per the requirement or as per the request, service firms provide intangible services where in quality is judged through perceptions of customers. Service quality is becoming more and more important to automobile companies as customer satisfaction and loyalty lead to repeated purchases and higher market share.

The present research attempts to address the issue of service quality in a Saudi service industry context with a specific focus on the automobile service industry from customers' viewpoint. This study shall be useful to the business under investigation, Saudi Arabian Automobile Company (SAACO), to improve market share, profits, customer's retention and competency.

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## II. OBJECTIVES OF THE STUDY

The main objectives of the study are to:

- To measure the gap between the expected and actual perceived service quality.
- To measure the levels of customer satisfaction and loyalty.
- To examine the relationship between service quality dimensions and each of customer satisfaction and customer loyalty.

## III. PREVIOUS STUDIES

In the literature, there has been extensive progress as to how service quality perceptions should be measured but little advance as to what should be measured (Brady and Cronin, 2001). Researchers in general have adopted one of two conceptualizations (Brady and Cronin, 2001). The first one is the "Nordic" perspective (Gronroos 1982, 1984), which defines the dimensions of service quality in general terms as consisting of functional and technical quality. The second one is the "American" perspective (Parasuraman, et al., 1985) that uses terms to describe service encounter characteristics as reliability, responsiveness, empathy, assurance and tangibles.

The original service quality model "Nordic Model" was generated by Gronroos (1982) Expanding on the work of Gronroos (1982, 1984), Parasuraman, et al. models (1985, 1988, 1991, 1991a, 1994) have made a significant contribution to several service quality research studies. Parasuraman and his colleagues developed a five dimensions service quality model which focused on the gap between expectations and perception, both of which are measurable by using the SERVQUAL instrument.

The SERVQUAL model measures the discrepancies between customers' expectations and perceptions. The SERVQUAL instrument consists of 22 items (Table 1) and comprises two parts: expectations and perceptions. Parasuraman et al., (1985) indicated that if the expectation of service quality is exceeded, it means customers' satisfaction. If the expectation is not met, it means customers' dissatisfaction.

Table 1: Service Quality Dimensions

Tangibles	<ul style="list-style-type: none"> <li>• Modern equipment.</li> <li>• Visually appealing facilities.</li> <li>• Employees who have a neat, professional appearance.</li> <li>• Visually appealing materials associated with the service.</li> </ul>
Reliability	<ul style="list-style-type: none"> <li>• Providing services as promised.</li> <li>• Dependability on handling customer's service problems.</li> <li>• Performing services correctly the first time.</li> <li>• Providing services at the promised time.</li> <li>• Maintaining an error - free records.</li> </ul>
Responsiveness	<ul style="list-style-type: none"> <li>• Keeping customers informed about when services will be performed</li> <li>• Prompt service to customers.</li> <li>• Willingness to help customers.</li> <li>• Readiness to respond to customer's requests.</li> </ul>
Assurance	<ul style="list-style-type: none"> <li>• Employees who instil confidence in customers.</li> <li>• Making customers feel safe in their transactions.</li> <li>• Employees who are consistently courteous.</li> <li>• Employees who have the knowledge to answer customer's questions.</li> </ul>
Empathy	<ul style="list-style-type: none"> <li>• Giving customers individual attention.</li> <li>• Employees who deal with customers in a caring fashion.</li> <li>• Having the customer's best interest at heart.</li> <li>• Employees who understand the need of their customers.</li> <li>• Convenient business hours.</li> </ul>

Source: Zeithaml, V.A., Parasuraman, A. and Berry, L.L. (1990), *Delivering quality service; Balancing customer perceptions and expectations*, The Free Press, New York, NY.pp.181 – 183.

Expanding on the work of Gronroos (1984), the Gaps model proposed by Parasuraman, et al. (1985) the service quality model is based on five gaps. The customer gap refers to the difference between customer's expectations and perceptions of the service (Zeithaml, et al., 1996).

According to Seth and Deshmukh (2004), the service gaps include:

- Gap one is the difference between what the customer expected and what management perceived about the customer expectation.
- Gap two is the difference between management perceptions of customer expectations and conversion of those perceptions into service quality specifications.
- Gap three is the difference between actual service standards and the delivery of those standards to customers actually.

- Gap four is the difference between the services delivered to the customer and external communications for the service.
- Gap five is the difference between customer expectations of service and the perception of service consumed.

There are many researchers who have defined customer satisfaction in different ways. For instance, (Brady and Robertson, 2001) conceptualized customer satisfaction as an individual's feeling of pleasure or disappointment resulting from comparing a product's perceived performance in relation to his expectations. In the agreement with that, Kotler and Keller (2009) defined customer satisfaction as "the level of persons felt state resulting from comparing a product perceived performance or outcome in violation to his / her own expectations." Customer satisfaction represents the influence of a long relationship between the firm and its customer.

The relationship between customer satisfaction and service quality is arguable. For instance, some researchers contended that the service quality is the antecedent of customer satisfaction while others claimed the opposite relationship. Parasuraman et al., (1985) distinguished between service quality and customer satisfaction and argued that service quality is a global judgment, or attitude, relating to the superiority of the service while satisfaction is related to a specific transaction.

#### IV. RESEARCH METHODOLOGY

##### a) Sample and Sampling Procedure

A cluster sampling method was used to select the respondents. According to this method, the population of the study, 16,849 customers, was divided into three subgroups of elements (customers who visited three branches located in different geographical areas). Due to the large population and also due to cost and time constraints, a smaller-size sample of 140 customers was taken. In total, 140 questionnaires were distributed randomly to customers across the three company's service outlets in the eastern region of Saudi Arabia and equal number of customers from each branch was requested to fill the questionnaire.

The random selection at each location was done by using the random numbers table. The sampling frame was available as the company has detailed information in its database about each customer who scheduled service appointment at each branch. The valid returned questionnaires were 117 and the response rate was 83.6%.

##### b) Instrument

The questionnaire survey is the main form of data collection. SERVQUAL instrument was used to measure the perceived service quality as was proposed by Parasuraman et al., (1988) with slight modification to the wording to make it specific to the research service industry. The SERVQUAL instrument can be adopted to fit any service organization irrespective of its characteristics (Parasuraman et al., 1988).

A five points Likert scale will be used to measure the respondent's extent of agreement to the given statements. The instrument was first translated into Arabic as the majority of respondents are Arabic. Later on, the translated version was submitted to a number of instructors of the business administration college at the University of Bahrain for revision. Their valued suggestions about the phrasing and wording of the translated instrument were reviewed and undertaken by the researcher.

After that, an instructor at the English department in King Abdul - Aziz University in Saudi Arabia compared the original instrument with the translated Arabic version for the final examination. The final Arabic version became ready after the language

wording and grammar check. Both versions of the instrument include six sections as follows:

- Section 1: The first section covered the demographics characteristics of the respondents such as Age, Educational Level and so on.
- Section 2: The expectations scale is a set of 22 items encompassing the five dimensions that describe what customers expect from automobile dealers. Respondents were instructed to rate each item on a scale from 1 to 5 where (5) means "strongly agree" and (1) means "strongly disagree."
- Section 3: The perceptions scale is a set of 22 items encompassing the five dimensions that describe what the customers actually think of the service provided by SAACO. Respondents were instructed to rate each item on a scale from 1 to 5 where (5) means "strongly agree" and (1) means "strongly disagree."
- Section 4: In this section, the importance weight of each dimension was obtained from the customers in order to know how much of these features are important to them. Customers were requested to allocate preferential points to the dimensions so that the total comes up to 100.
- Section 5: One question was used to measure the total customer satisfaction dimension on a scale ranges from 1 to 5 where (5) means "strongly agree" and (1) means "strongly disagree."
- Section 6: Two questions were used to measure the customer loyalty (willingness to recommend automobile dealership services to others and willingness to buy from the same automobile dealer again) on a scale from 1 to 5 where (5) means "definitely recommend" and (1) means "definitely not recommend."

The final SERVQUAL scores were calculated by applying the following procedures (Zeithaml et al., 1990: pp. 176 - 177):

- Subtract the expectation score from the perception score for each pair of statements (P-E).
- Add the scores on the statements pertaining to the dimension and divide the sum by the number of statements making up the dimension to obtain the mean scores.

##### c) Data Collection Procedure

After obtaining SAACO Management permission to conduct this research study, the questionnaires were distributed personally to the randomly selected customers at the company's service reception lounge while they are waiting for their vehicles to be serviced at the quick service centres at the three locations.



The respondents were given several minutes to fill it in. After completion, the questionnaires were collected right away. A covering letter describing the purpose of the study, instructions and confidentiality assurance was included in the questionnaire.

## V. RESULTS

### a) Gap Analysis: Expected versus Actual Service Quality

Figure 1 shows the gap between the expected and actual perceived service quality at SAC. Based on

the analysis the researcher can say that SAC customers have very high level of expectation about the service quality provided by automobile companies. Although SAC is providing high level of service quality, there is still room for improvement to meet the customers' expectations.

Figure 1: Gap Analysis Results: Expected versus Actual Service Quality

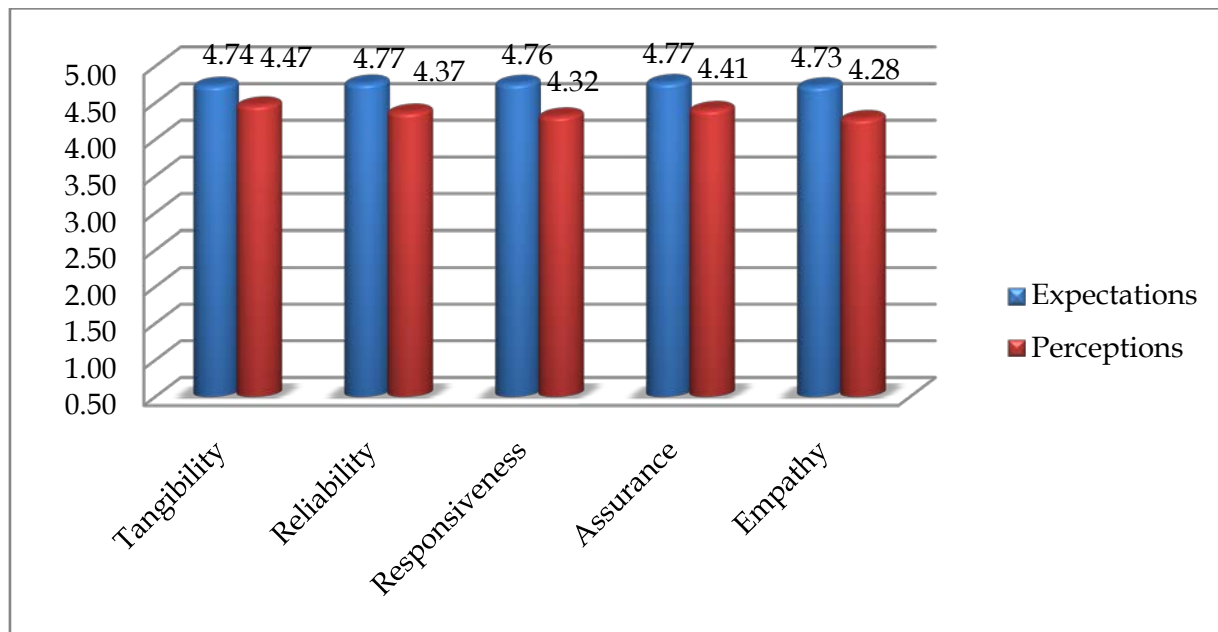


Table 2 shows the t-test done with the service quality dimensions. The Tangibles looked at Perception vs. Expectation, then Reliability looked at Perception vs. Expectation, then Responsiveness looked at Perception vs. Expectation, then Assurance looked at Perception vs. Expectation and finally Empathy looked at Perception vs. Expectation. The mean of the difference between all of expectation and perception values was negative and significant while standard deviation was seen but not at a huge scale. The Sig. (2 - tailed) value was all found to be significant at .000 which is less than 0.5.

### b) Customer Satisfaction and Loyalty at SAACO

Table 3 shows the Levels of Customer Satisfaction at SAACO, based on the data collected from the respondents. The mean of the data after the calculation was 4.37, which means that the company is able to attain a good level of customer satisfaction and there is a room for improvement.

Table 4 shows the Levels of Customer Loyalty at SAACO, based on the data collected from the

respondents. The mean of the data after the calculation was 4.38, which means that the respondents agree that they as customers are loyal to the organisation.

Table 2: T-Test of Expected versus Actual Service Quality

Paired Samples Test							
	Paired Differences				t	df	Sig. (2 - tailed)
	Mean	Standard Deviation	95% Confidence Interval of the Difference				
			Lower	Upper			
Tangibles (Perception – Expectation)	- 0.27	0.80	- 0.42	- 0.12	- 3.64	100	.000
Reliability (Perception – Expectation)	- 0.39	0.87	- 0.55	- 0.24	- 4.91	100	.000
Responsiveness (Perception – Expectation)	- 0.44	0.91	- 0.61	- 0.28	- 5.29	100	.000
Assurance (Perception – Expectation)	- 0.37	0.86	- 0.52	- 0.21	- 4.64	100	.000
Empathy (Perception – Expectation)	- 0.45	0.82	- 0.60	- 0.30	- 5.89	100	.000

Table 3: Mean and Standard Deviation for Customer Satisfaction

Statement - Customer Satisfaction	Mean Score	Standard Deviation
What was your level satisfaction with SAACO automobile company?	4.37	0.99
<b>Total</b>	<b>4.37</b>	<b>0.99</b>

Table 4: Mean and Standard Deviation for Customer Loyalty

Statement - Customer Loyalty	Mean Score	Standard Deviation
Would you recommend this SAACO automobile company to a friend / family member?	4.38	1.00
How likely are you to buy from SAACO automobile company again?	4.38	1.01
<b>Total</b>	<b>4.38</b>	<b>0.97</b>

Correlation Analysis between each Service Quality Dimension and Customer Satisfaction and Customer Loyalty

Table 5 shows the relationship between each Service Quality dimensions and Customer Satisfaction. The table indicates that customer satisfaction and reliability have a strong positive relationship followed by tangibles while the least was for assurance and responsiveness.

Table 5: Relationship between Service Quality Dimensions and Customer Satisfaction

Correlations								
			Customer Satisfaction	Tangibility	Reliability	Responsiveness	Assurance	Empathy
Spearman's rho	Customer Satisfaction	Correlation Coefficient	1.000					
		Sig. (2 - tailed)	.					
		N	100					
	Tangibles	Correlation Coefficient	.542**	1.000				
		Sig. (2 - tailed)	.000	.				
		N	100	100				
	Reliability	Correlation Coefficient	.562**	.780**	1.000			
		Sig. (2 - tailed)	.000	.000	.			
		N	100	100	100			
	Empathy	Correlation Coefficient	.483**	.745**	.822**	1.000		



		Sig. (2 - tailed)	.000	.000	.000	.		
		N	100	100	100	100		
	Assurance	Correlation Coefficient	.512**	.659**	.806**	.781**	1.000	
		Sig. (2 - tailed)	.000	.000	.000	.000	.	
		N	100	100	100	100	100	
	Empathy	Correlation Coefficient	.542**	.771**	.841**	.855**	.799**	1.000
		Sig. (2 - tailed)	.000	.000	.000	.000	.000	.
		N	100	100	100	100	100	100
	**. Correlation is significant at the 0.01 level (2 - tailed).							
	*. Correlation is significant at the 0.05 level (2 - tailed).							

Table 6 shows the relationship between each Service Quality dimensions and Customer Loyalty. Based on the results shown in the table, one can say that for customer loyalty and empathy dimension have strong positive relationship followed by assurance while reliability and tangibles have the least amount of strength with customer loyalty.

Table 6: Relationship between Service Quality Dimensions and Customer Loyalty

Correlations								
			Customer Loyalty	Tangibility	Reliability	Responsiveness	Assurance	Empathy
Spearman's rho	Customer Loyalty	Correlation Coefficient	1.000					
		Sig. (2 - tailed)	.					
		N	100					
	Tangibles	Correlation Coefficient	.498**	1.000				
		Sig. (2 - tailed)	.000	.				
		N	100	100				
	Reliability	Correlation Coefficient	.491**	.780**	1.000			
		Sig. (2 - tailed)	.000	.000	.			

	N	100	100	100			
Responsiveness	Correlation Coefficient	.507**	.745**	.822**	1.000		
	Sig. (2 - tailed)	.000	.000	.000	.		
	N	100	100	100	100		
Assurance	Correlation Coefficient	.513**	.659**	.806**	.781**	1.000	
	Sig. (2 - tailed)	.000	.000	.000	.000	.	
	N	100	100	100	100	100	
Empathy	Correlation Coefficient	.588**	.771**	.841**	.855**	.799**	1.000
	Sig. (2 - tailed)	.000	.000	.000	.000	.000	.
	N	100	100	100	100	100	100
**. Correlation is significant at the 0.01 level (2 - tailed).							
*. Correlation is significant at the 0.05 level (2 - tailed).							

## VI. CONCLUSION

Cars owners expect to receive excellent quality of service not only while the purchasing process is going on, but even after the car has been purchased. Today's customers expect to receive reminders when their vehicles' periodic service is due, to be able to book a service appointment easily and to receive personalized treatment. This means that in order to retain an existing customer and let him repurchase again in the future, it is important that their expectations are met not only to the minimum standard but beyond what is required. In order to achieve this, it is essential to be very close to the customers, continuously listen to their voice and keep capturing up to date information about their future needs, expectations and perceptions.

This analytical study evaluated the impact of service quality on customer satisfaction and customer loyalty in one of the automobile companies that operates in the developing country of Saudi Arabia. The service quality was tested and reviewed using the SERVQUAL. Through this study, it was found that the majority of SAACO customers are highly satisfied and are loyal to the organization. This result is definitely beneficial for SAACO in order to stay ahead of its competitors and grow its market share.

It is understood that improving customer satisfaction and customer loyalty will increase customer retention and this in turn reflects positively on both market share and profitability. In order for any organization to succeed in the modern market, it should put the customers in the centre of its businesses and build a strong and long term relationship with them by winning their confidence rather than concentrating only on number of units sold.

Management of customer gap is the key of improving service quality in an organization. Therefore, systematic and periodic assessment of service quality is essential to determine the strength and weakness areas. Acting proactively on this places the company in advantageous position.

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# The Relationship between Consumer Characteristics (Demographic Characteristics and Personality Traits) and SST Adoption in Multiple Service Industries in Saudi Arabia

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**Abstract-** This study examines the relationship between consumer characteristics (demographic characteristics and personality traits) and SST adoption in Multiple Service Industries in Saudi Arabia. With regards to the appropriate population sample, it should be 384 (Sekaran, 2003), and as such, the sample comprised of 400 individuals where data was obtained by self-administered questionnaire. This study addressed some assumptions of analysis including normality and multicollinearity. Furthermore, this study used multiple regressions analysis in order to test the relationship between independent variables and dependent variable.

**Keywords:** *demographic characteristics, personality traits, SST adoption and service industries in Saudi arabia.*

**GJMBR - E Classification :** *JEL Code : M31, P36*



*Strictly as per the compliance and regulations of:*



# The Relationship between Consumer Characteristics (Demographic Characteristics and Personality Traits) and SST Adoption in Multiple Service Industries in Saudi Arabia

Badah Homuod Alotaibi <sup>α</sup> & Ebrahim Mohammed Al-Matari <sup>σ</sup>

**Abstract-** This study examines the relationship between consumer characteristics (demographic characteristics and personality traits) and SST adoption in Multiple Service Industries in Saudi Arabia. With regards to the appropriate population sample, it should be 384 (Sekaran, 2003), and as such, the sample comprised of 400 individuals where data was obtained by self-administered questionnaire. This study addressed some assumptions of analysis including normality and multicollinearity. Furthermore, this study used multiple regressions analysis in order to test the relationship between independent variables and dependent variable. This study found a positive and significant association between demographic characteristics and SST adoption and a positive significant effect of personality traits on SST adoption. Eventually, this study offered some limitations and suggestions for future studies towards the end.

**Keywords:** demographic characteristics, personality traits, SST adoption and service industries in Saudi Arabia.

## 1. INTRODUCTION

The service sector is one of the important contributors to the global economy. More specifically, in North America, the exports of commercial services in 2008 alone, increased by 9% to USD\$603 billion while the imports increased by 6% to USD\$473 billion. Europe's exports of commercial services on the other hand also showed an increase by 11% to USD\$1.9 trillion along with exports by 10% to USD\$1.6 trillion. In the meantime, commercial services exports in the context of the Middle Eastern countries was reported at USD\$94 billion in 2008, showing an increase of 17% from the year before. Along a similar line, imports also increased by 13% in the same context to USD\$158 billion (WTO, 2008). While the economic growth of both the continents of Europe and North America only displayed a slight 1% increase in 2008, the

oil exporting regions of South and Central America, the Commonwealth of Independent States, Africa and the Middle East all reported increase in their GDP growth of 5% with Middle East exports growing at the rate of 6.3%.

Within the services sector, the current convergence of information and communication technology (ICT) is generating novel opportunities including redeployment of people, reconfiguration of organizations, sharing information and investing in technologies. The investments are expected to produce technical solutions that accommodate the dynamic business environment and effectively make use of the knowledge value in service relationships to generate superior business value (Arsanjani, 2004). These activities that are catered to generating services are arising at many levels of the organization and it makes use of technology to meet the increasing requirement for higher business integration, agility and versatility.

One of the most widely used technologies by firms in response to the service-oriented thinking activities is self-service technologies (SST). They are technological interfaces that allow customers to make use of service that is independent from direct employee involvement (Bitner, Brown, and Meuter, 2000). This kind of interface is known as person to technology service delivery (Dabholkar, 1994). Initially, in the early era of self-service technology, automated teller machines (ATM) are implemented by banks and other financial intermediaries to disperse money and carry out other services such as balance checking and account transfer. The financial services delivery and consumption has however experienced major changes. Development in technology has restructured the environment of businesses.

Self-service technologies have increasingly become important in the service environment over the past decade. In fact, technology-based interactions are expected to become a crucial element for long-term success in service delivery in the service industry like retailing and hospitality (Meuter et. al., 2000) in the future. As such, no wonder tourism and technology are two of the largest and fastest growing industries in the world (Sheldon, 1997). Moreover, self-service

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technology is expected to become increasingly more important as service providers throughout the world continue to exert efforts and find ways to lower costs while increasing service to maintain their competitiveness in the market.

In the last few decades, corporations have significantly increased their investment in information technology (Ndubisi, 2005). With the aim of satisfying diverse consumer needs and gaining competitive advantages in the market, retail banks for instance have invested millions in new technologies. Global Information Technology (IT) spending by financial institutions reached USD\$351.2 billion in 2008 with an annual growth rate of 5.1%.

## II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### a) *Demographic Characteristics and SST Adoption*

Demographic characteristics have long been a focus of innovation adoption literature, and are primary predictors of adoption whereby they influence the consumer's attitude and behaviour intention in adopting the SST (Rogers, 1995; Burke, 2002). A thorough literature review of studies dedicated to consumers use of SSTs shows a basic focus on differences among individuals (Parasuraman & Colby, 2001) and differences among attitude models when it comes to predicting intended behaviours (Curran, Meuter and Surprenant, 2003; Dabholkar & Bagozzi, 2002). The effect of SST usage drivers is not equal throughout various demographic groups (Chiu, Lin & Tang 2005). The importance of the demographics groups in technology adoption has been recognized in a variety of studies (Morris & Venkatesh 2000; Venkatesh and Morris 2000; Venkatesh *et al.* 2003).

The top four major relevant variables known to affect technology adoption are age, gender, education and income (Burke, 2002). Individuals who tend to adopt new technologies are younger, male, highly educated, and have higher income than their non-adopting counterparts (Labay & Kinnear, 1981; Danko & MacLachlan, 1983; Dickerson & Gentry, 1983; Darian, 1987; Zeithaml & Gilly, 1987; Gatignon & Robertson, 1991; Greco & Fields, 1991; Rogers, 1995; Sim & Koi, 2002; Venkatraman, 1991).

Morris and Venkatesh (2000) claimed that the association between attitude and intention is not the same for every individual. The intention to use the technology is stronger among younger people than the older ones. Currently, many studies found that gender has some influence in the use of technology where both genders utilize different information-processing methods (Meyers-Levy & Maheswaran, 1991). Females usually demonstrate greater involvement and high information process while shopping compared to their male counterparts (Laroche *et al.*, 2000; Laroche *et al.*, 2003).

This can be explained through the different priorities that both genders harbour in that males try to keep time and effort investment minimized, while females are desirous of minimizing the distraction from the shopping experience.

In using the self-service technology, this signifies that males place more significance in making efficient shopping with the help of SST, but females avoid complicating their shopping task performance by having to make use of SST. According to Venkatesh and Morris (2000), in comparison to females, males' use of technology is strongly influenced by their perceptions of its usefulness while the female is more strongly influenced by their perceptions of the technology's ease of use (p. 115).

Moreover, Durrande-Moreau and Usunier (1999) contended that individuals who possess high qualified jobs have a greater tendency to show a more quantitative time orientation as implied by the statement, 'time is money'. SST is higher among more highly educated individuals compared to their low-educated counterparts. Also, Rogers (2003) reached to the conclusion that early adopters tend to have more years of formal education compared to later adopters. It is obvious that the defining feature of innovations is their newness and this attribute has some use for customers (Blythe, 1999) and this is particularly the case for highly educated groups as they are more inclined to adopt new technologies (Im, Bayus, & Mason, 2003).

The effect of education on user attitude toward technology is discussed in literature as having an impact on the attitude and intention of an individual towards workplace technologies (Morris and Venkatesh, 2000; Venkatesh & Morris, 2000; Evanschitzky & Wunderlich, 2006). Individuals having higher levels of education tend to gather and process more extensive information as well as employ more information before they decide. On the other hand, less educated people however do not perform similarly and rely more on fewer information cues (Morris and Venkatesh, 2000; Venkatesh and Morris, 2000; Evanschitzky and Wunderlich, 2006; Capon & Burke, 1980).

In addition, higher education may result in confidence and the perception that SST is more understandable and invaluable (Breakwell, 1986; Gist, 1987; Igbaria & Parasuraman, 1989). Household income also play some role in the adoption of the SST, greater household incomes are more inclined to use the technology in comparison to their low-income counterparts. This is because the high household income is positively associated with the possession of current technology including computers, Internet access and higher education levels of consumers and thus using the self-service technology is something common to them (Lohse *et al.*, 2000).

Higher income may lead to higher chances of access to the needed tools and the motivation for SST use (Breakwell, 1986; Gist, 1987; Igbaria&Parasuraman, 1989). This discussion has led this study to confirm the significant of demographic factors in the seek values that consumer look for in using the SST. Hence, hypothesis 1a is proposed;

***H1: There is a relationship between Demographic factors and SST Adoption.***

***b) Personality Traits and SST Adoption***

Personality traits have been widely discussed in the consumer behaviour literature as an influencing factor in the use of self-service technology (Dabholkar&Bagozzi, 2002; O'Cass&Fenech, 2002; Childers *et al.*, 2001). Personality traits are believed to have effects on consumer's intention and thus it is significant in the seek values of the consumers. Three important personality traits that are commonly assessed in the consumer intention and adoption are; self-efficacy as highlighted by Eastin and LaRose (2000), Marakaset *al.* (1998) and Bandura, (1994), inertia as mentioned by Dabholkar and Bagozzi (2002) and Meuteret *al.* (2005) and interaction need (Dabholkar and Bagozzi, 2002; Dabholkar, 1996).

Self-efficacy is the individual's beliefs that he/she is capable and has the resources to perform a particular task successfully (Bandura, 1994). It is the level to which the customer perceives that using the self-service technology is easy or difficult. General computer self-efficacy is defined by Marakaset *al.* (1998) as an individual's judgment of efficacy throughout multiple computer application domains, while internet self-efficacy is an individual's judgment of his/her ability to employ Internet skills in a more extensive method, like searching for information or troubleshooting search issues (Eastin&LaRose, 2000). Hence, individuals with low self-efficacy are not certain and are uncomfortable using technology and require simple procedures to guide them to using the technology. Low self-efficacy consumers would unlikely seek the values for the technology adoption as they are not comfortable with the technology whilst high self-efficacy consumers would likely seek the values for the technology adoption as they are comfortable with the technology used. Judgments of self-efficacy are positively linked to outcome expectations (Oliver & Shapiro, 1993). In other words, the higher the person's self-efficacy is, the more likely that person will try to meet the expected result. This is because consumers have higher tendency to try and persist in behaviours that they feel that they are capable of performing (Eastin&LaRose, 2000).

Inertia refers to the level to which people refuse to change their customs/habits. Inertia may limit efforts to learn about SST. Utilizing new SST calls for investing in time and energy and this minimizes motivation (Gremier, 1995). Inertia also hinders behavioural

changes and results in the hesitancy in trying new service delivery options (Aaker, 1991; Gremier, 1995).

The other personality characteristic related to the user seeks value and consumer behaviour intention of technology adoption is the need for interaction with the employee of the service provider (Dabholkar&Bagozzi, 2002). This interaction need refers to the significance of human interaction to the consumer during the provision of service (Dabholkar, 1996). In the context of self-service technology, human interaction with an employee of the service provider is replaced by help-buttons and search features of the technology.

Hence, consumers having high need for interaction will steer clear of using the technology while consumers with a low need for interaction will be more amiable towards the option (Dabholkar&Bagozzi, 2002). This high need for interaction may result in minimized interest in how SST works and the motivation to have a go at it (Dabholkar, 1996; Langeardet *al.*, 1981). In other words, a high level of need of personal interaction minimizes the motivation towards using SST (Bateson, 1985; Langeardet *al.*, 1981; Meuteret *al.*, 2000).

This indicates that the characteristic of the consumer's 'need for interaction' has a significant impact on the association between consumer behaviour intention and the self-service technology adoption. Because of the lack of physical contract with employees and sales persons in self-service technology adoption environment, the relationships should be stronger for consumers with a high degree of interaction to perceive positive value in self-service technology adoption. The above discussion leads this study to confirm that personality traits influence the user seek values. Hence, hypothesis 2 is proposed as follows:

***H2: There is a relationship between Personality Traits and SST Adoption.***

### III. RESEARCH METHOD AND THE STUDY MODELS

The population for this study comprise of people who live in Saudi Arabia and who use the self-service technology in various industries in the country. There is no single authoritative sampling frame that is accessible in the country, thus sampling frame is not drawn based on the population of the people or consumers in the country.

In this study sample respondents' selection is based on Sekaran (2003) who stated that if the population of the study exceeds a million, a recommended sample of 384 respondents would be enough to generate findings that could be generated to larger groups. Thus, this study planned to include 384 respondents for the study sample.

Sampling is the process of selecting units such as people or organizations from a population, and by studying the sample it enables the researchers to fairly



generalize the results to the population. In addition, a sample is the group of people who are selected to be in the study. Thus sampling is the utilization of a subset of the population to reflect the whole population. The methods of selecting the groups of people can be done by using several sampling procedures. As far as research methodology is concerned, there are two major sampling methods that are commonly used in research; non-probability and probability sampling. The most appropriate sampling method is needed to ensure that the sample truly represent the whole population and thus can be generalized to other places and at other times. Non-probability sampling is a sampling technique where not everyone has a chance to be selected as a sample; some people have a greater chance while others do not. In contrast, probability sampling is a

technique where every person has an equal chance to be selected as a sample at random. This study will use a non-probability technique due to unfeasible and impractical situations to select samples randomly in Saudi Arabia.

The main technique for gathering the data is through a survey in which the instrument, a questionnaire is distributed to the respondents. Survey research is among the most important areas of measurement in social research. The general area of survey research covers any measurement procedures involving asking respondents questions. A survey is described as ranging from a short paper-and-pencil feedback form to an intensive one-to-one extensive interview.

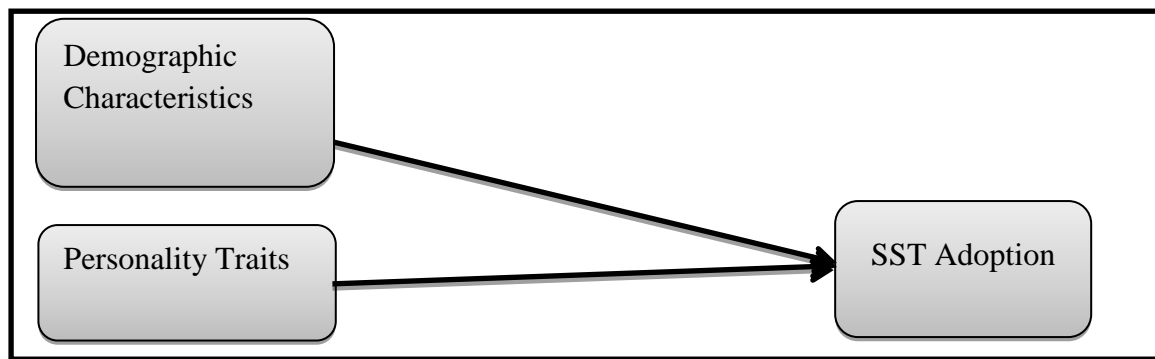


Figure 1: Research Framework

#### a) Measurements of Instruments

Consumer characteristics can be measured through two main dimensions; demographic profiles which represent the user, and personal traits. Demographic profiles include the four main factors of age, gender, income and education (Burke, 2002). In this context, personal traits encompass expertise (Ratchford *et al.*, 2001; Alba & Hutchinson, 1987). Finally, Adoption of SST – process of adoption is adapted from Rogers (1995) that include trial, evaluation, awareness, investigation, repeated use and commitment. However, this study only summarized them into five stages instead of six which include non-adopter (awareness and investigation, considering (evaluation), using (trial),

using frequently (repeated use), and using regularly (commitment).

## IV. DATA ANALYSIS AND RESULTS

The data gathered is analysed through IBM SPSS to provide a description of the data and to test the relationship proposed in the hypotheses.

#### a) Descriptive Statistic

The continuous variables descriptive statistics results are presented in Table 1. They cover values of mean, standard deviation, minimum and maximum obtained through SPSS version 21.

Table 1: Descriptive Statistics of Continuous Variables

Variables	Mean	Std. Deviation	Min	Max
DC	2.515	.6348	1.00	5.00
PT	3.306	.6704	1.00	5.00
SSTADOT	3.808	.623	1.25	5.00



b) *Testing the Assumption of Normality*

Normality testing is utilized to confirm the symmetrical curve with the highest frequency of scores towards small and middle frequencies in the extreme (Pallant, 2011). Accordingly, Kline (1998) and Pallant (2011) recommended that the normal distribution assessment for both independent and dependent variables can be examined through their values of skewness and kurtosis. In the field of social sciences, the constructs nature is characterized by several scales and measures that may lead to positive or negative skewness (Pallant, 2011). On the other hand, kurtosis values measures the distribution that displays the level to which observations are collected around the central

mean. Skewness values that fall outside the range of +1 to -1 are considered as skewed (Hair et al., 2010). Another take on the distribution comes from Kline (1998) who suggested the range from +3 to -3 as acceptable. On the basis of Kline's (1998) suggestion, the values of skewness in this study are acceptable but not on the basis of Hair et al.'s (2006) suggestion. In addition, the kurtosis values (+3 to -3) were met in this study as presented in Table 5.5.

However, some of the skewness values are deviated from normal distribution and hence, the study made use of SPSS to address such skewness (Chin, 1998).

*Table 2: Results of Skweness and Kurtosis for Normality Test*

Variables	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
DC	0.415	0.122	1.324	0.243
PT	-0.415	0.122	-0.087	0.243
SSTADOT	-0.725	0.122	0.889	0.243

c) *Correlation Analysis*

According to Hair et al. (2010) in order in identifying the strength of the relationship between dependent and independent variables, no correlation exists if the correlation value is equal to 0, and when the correlation value is equal to  $\pm 1.0$ , a perfect correlation is deemed to exist. They further explained that values that fall in the range from  $\pm 0.1$  to  $\pm 0.29$  are deemed to have small correlation, whereas those falling between

correlation value (r) of  $\pm 0.30$  and  $\pm 0.49$  indicate a medium correlation. Added to the above, when the correlation value exceeds  $\pm 0.50$ , then the correlation relationship is said to be strong.

The results of the correlation analysis are depicted in Table 3 and according to the findings, the correlations are all less than 0.80 indicating that Gujarati and Porter's (2009) criterion is met for the absence of multicollinearity.

*Table 3: Results of Pearson Correlation Analysis*

	1	2	3
1) DC			
2) PT	-0.258***		
3) SSTADOT	0.069	0.255***	

Notes: \*\*\*Correlation is significant at the 0.01 level (2- tailed).

\*\*Correlation is significant at the 0.05 level (2- tailed).

\*Correlation is significant at the 0.1 level (2- tailed).

d) *Multicollinearity Test*

*Table 4: Multicollinearity Test*

Variables	Tolerance Value	VIF
DC	.933	1.071
PT	.933	1.071

e) *Regression Results of Model (Based on SST Adoption)*

Table 5: Regression Results of Model (Dependent = SST Adoption)

Variables	Standardized Coefficients Beta	t-value	Sig.
DC	0.144	2.907	0.004
PT	0.292	5.882	0.000
R <sup>2</sup>			0.085
Adjusted R <sup>2</sup>			0.080
F-value			18.333
F-Significant			0.000

The regression analysis results of SST adoption are presented in Table 5, where the value of the model's R<sup>2</sup> is 0.085, which shows that the model accounts for 9% of the SST adoption variance (a respectable result). Moreover, the adjusted coefficient of determination (R<sup>2</sup>) shows that 0.08% of the dependent variable's variation is accounted for by the independent variables evidencing the fact that the SST adoption variation was statistically explained by the regression equation. Table 5 also shows the significant F value of the model at (F=18.333, p<0.01) signifying model validity.

## V. DISCUSSION OF RESULTS

### a) *Demographic Characteristics and SST Adoption*

The finding as presented in Table 5 revealed that there is a positive and significant relationship between demographic characteristics and SST adoption so H1 is supported. Meaning that, SST adoption will increase with higher demographic characteristics.

### b) *Personality Traits and SST Adoption*

This study, as mentioned earlier, hypothesized that there is a positive relationship between personality traits and SST adoption. Table 5 reveals the result regarding this relationship and according to it, personality traits have a positive and significant association with SST adoption.

## VI. CONCLUSION

This study was an attempt to investigate the relationship between consumer characteristics (demographic characteristics and personality traits) and SST adoption in multiple service Industries in Saudi Arabia. This study used SPSS to run the relationship between independent variables and dependent variable. Moreover, the sample was comprised of 400 sampling where data was obtained by questionnaire. The outcome of this study found a positive and significant association between demographic characteristics and SST adoption. In the same path, this study also revealed

that there is a positive significant relationship between personality traits and SST adoption.

## VII. LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

This study has some limitations and suggestions for future studies. Firstly, this study's main objective is to examine the relationship between consumer characteristics (demographic characteristics and personality traits) and SST adoption in Saudi Arabia directly so this study recommended future researchers to take into account this relationship in other countries in the same level such as in GCC countries like Oman, Qatar among others. Secondly, this study advises future researchers to investigate this relationship through other variables like culture. Finally, this study recommends future researcher to make comparison between two countries in the GCC countries in order to determine the differences between them.

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# The Relationship between Information & Communications Technology, Prior Experience and Customer Loyalty in Saudi Arabia Insurance Industry Companies

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**Abstract-** This study is an attempt to examine the association between important variables of service quality namely information and communications technology, prior experience and customer loyalty in Saudi Arabia's provision of health insurance. This study obtained primary data collected through questionnaire after which SPSS version 21 was employed to test the relationship between independence variables and dependent variable. The results of this study revealed a positive and significant association between information and communications technology and customer loyalty. In the same path, prior experience was found to have a positive and significant connection with customer loyalty. Finally, this study provides limitations and suggestion for future studies towards the end.

**Keywords:** *information and communications technology, prior experience, customer loyalty, health insurance provides in saudi arabia.*

**GJMBR - E Classification :** *JEL Code : L60*



THE RELATIONSHIP BETWEEN INFORMATION COMMUNICATIONS TECHNOLOGY PRIOR EXPERIENCE AND CUSTOMER LOYALTY IN SAUDI ARABIA INSURANCE INDUSTRY COMPANIES

*Strictly as per the compliance and regulations of:*



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# The Relationship between Information & Communications Technology, Prior Experience and Customer Loyalty in Saudi Arabia Insurance Industry Companies

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## 1. INTRODUCTION

Service quality has succeeded to become a significant co-efficient in the competitive market realm. In other words, survival in such an environment entails the delivery of quality services form economic enterprises (Sandhu&Bala, 2011). The delivery of quality service is crucial for any business survival and success in the current market environment (Kara et al., 2005) as once the quality services are delivered to customers, it would satisfy the said customers and this would result to obtaining their loyalty (Tsoukatos, 2007).

The relationship that exists among customer satisfaction, customer loyalty and quality service is based on the notion on which service-centered firms (e.g. insurance firms) are established on (Yang & Jolly, 2009; Malini, 2012; Rai&Medha, 2013). As a consequence, it is the service-centeredfirms goal to

attract new customers and to maintain the satisfaction of current ones, in order to ensure their loyalty to the organization. This is because knowledge evidences that the costs of attracting new customers are greater than maintaining present ones via customer loyalty (Sirgy&Samli, 1985; Terblanche&Boshoff, 2006). Nevertheless, some researchers are still not convinced of the universality of the relationship between service quality, satisfaction and loyalty, contending that other factors impact this link in various environments and cultures (e.g. Cadogan&McNaughton, 2002; Yang & Jolly, 2009). Therefore, this study examines the effect of several antecedent and moderating factors that are expected to impact the provision of quality service of Saudi insurance industry firms.

This is evident from the rules provided by the World Trade Organization (WTO) concerning financial service industries reforms, where developing nations should balance their survival goals with free trade. Financial service industries reforms should also heighten the global insurers' incentives to enter emerging markets as reforms primarily lessen the barriers of entry in local markets. Following their decision to enter a new market, global insurers would think of the most optimum way of entrance (Ansari, 2011).

Insurance companies face many problems as they function with increasingly competitive pressures, due to the liberalisation of the financial services sector, which had led companies to focus most of their primary strategies toward improving service quality in order to enhance customer satisfaction and loyalty (Siddiqui& Sharma, 2010). Siddiqui and Sharma (2010) stated that nowadays the consumer is demanding services with higher standards and also becoming more and more aware of higher expectations. They further added that it is difficult for service providers to manage their services effectively, because the advancement of technology, especially in information and ICT, enables the consumer to make accurate and quick comparisons on the Internet. They concluded that this in turn leads to the

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fact that customer expectations and perceptions are continually changing and evolving.

Furthermore, customer service is more pertinent in service business as compared to manufacturing companies, since service characteristics are often inseparable and intangible. Due to improved technologies, growing customer sophistication, and increased private player competition, the recent years had witnessed greater thrust on achieving higher levels of efficient customer service. It can be observed that customers are becoming more and more advanced in their requirements and expectations, which in turn demands considerably higher standards of service (Sachdev&Verma, 2004). For the consumer, the term service can entail many meanings and go under different names, some of which include customer relationship, customer satisfaction, service delivery, customer delight, and etc. Because of this, there is increasing interest in improving customer service, which means that objectives of the business must be aligned closely with the customer service elements. Meanwhile, according to Payne (1995), initiatives related to quality improvement go hand in hand with customer service initiatives. Previous research reported that the concepts of marketing, customer service, and quality have been integrated to form a new perspective on the old concept (Christopher &Ballantyne, 1991). Thus, marketers now are of the opinion that achieving quality has become a pivotal concern. Therefore, in order for service providers to attain better positions in the market place, a vital key is consistent superior service delivery (Brown & Swartz, 1989).

## II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### a) *Information and Communications Technology and Customer Loyalty*

Technology is described as the bulk of knowledge, tools, methods and innovations developed from science and practical experience that is utilized in developing, designing, producing and applying products, processes systems as well as services (Pier, 1989). The technological revolution that precipitated in the middle of the 20<sup>th</sup> century brought with it the possibility of computers where in data can be stored and modified. However, arguably the greatest technological event of the twentieth century was the discovery of the Internet (Ilie, 2008), since it made it easier for people to communicate from different parts of the world. As stated by Warrick and Stinson (2009), more than 1.2 billion people are Internet users, and the numbers continue to rise. An invention that took the use of the Internet to a critical edge was the introduction of smart phones where people are able to transfer data, check their emails, use social media, and communicate without the need to use a computer or a laptop.

Organisations worldwide have been making use of emerging technologies for the sake of enhancing their organisational performance and securing a competitive advantage in a highly competitive market.

In their nature, human beings are very adaptable and they tend to cope with the changes that take place in the world around them (Chuluunbaatar, 2011). People are always making decisions, and constantly altering them according to what is appropriate for the time and circumstance. Therefore, sustainable development of a society requires judgment about today and being prepared to modify constantly through time and space. During the past few decades, the technological advancements created demographic, economic, cultural, and social challenges that are a consequence of scientific innovations. Adoption is a slow and continuous process, yet it is adoption rather than innovation that ultimately determines the pace of economic growth and rate of change in productivity (Hall and Khan, 2003). Companies in general made use of these technological advancements including service-oriented companies to facilitate their activities and enhance their performances (Chuluunbaatar, 2011).

In measuring the construct of ICT and how insurance companies utilise these new technologies to provide good services to customers, ideas from Davis's (1989) Technology Acceptance Model (TAM) are used as part of this study. An assumption in TAM is that both perceived ease of use (EOU) and perceived usefulness (U) components of a new technology would be foremost in affecting the attitude of the individual toward using that particular technology. Meanwhile, the behavioural intention to use a technology is hypothesised to be influenced by the attitude of the individual, which finally ends in the relation to the actual use. Perceived usefulness (PU) is the belief that adoption of the (ICT) technology would lead to workplace activity that is augmented (Davis, 1989). Meanwhile, the perception of EOU component refers to the (IS) system being effortless to use. Previous research efforts by Abdel-Waha (2008), Mathieson (1991), and Pavri (1998) discovered that TAM is capable of explaining a high degree of the variance for why users choose to use systems.

Moreover, the importance of ICT was addressed by Al-Mudimigh (2009) who stated that, "the use of technology will be a very strong factor for our future research. The customer will interact directly with the organisation without any hesitation and the appointment system will be enhanced: the customer will make appointments online without going to the concerned organisation". Additionally, Rahim (2010) also recommended using the construct of ICT as a factor in future studies. He stated that, "new technologies and ICT must be incorporated as a factor to measure service quality in future researches", and that incorporating new technology in future work would

provide a deeper understanding of the service quality offered by different service-oriented firms.

Coviello (2008) conducted a study that attempted to examine the impact of ICT on the insurance industry. He argued that the increasingly introduction of ICT brought about monumental changes in the insurance sector, and changed the method of operation thus enabling the enrichment of services provided to end users. The study concluded that adopting ICT is highly important for the relationship between insurance companies and their customers and more adoption of ICT results in better service quality encounter.

In the context of insurance companies, Fadun (2013) examined the impact of ICT (Information and Communication Technology) upon the profitability of insurance companies and identified the imperatives for ICT adoption in the hopes of promoting efficient and effective service delivery and of attaining profit maximization in Nigeria. The study employed a structured questionnaire and distributed it to 152 respondents in 18 insurance and the results showed a positive relationship between ICT adoption and Nigerian companies' profitability. This indicates that insurance companies ICT adoption can improve their efficiency, their quality of service delivery and their profitability. Hence, considering this line of argument, the researcher proposes the following second hypothesis.

*H1: There is a positive relationship between Information and Communications Technology and Customer Loyalty.*

#### *b) Prior Experience and Customer Loyalty*

As far as the insurance industry is concerned, customers' prior experience refers to the previous encounter customers have had with the insurance company (Urban, 2010). Customers' prior experience is believed to be a very influential factor in determining service quality in the service-oriented companies in general and in the insurance industry in particular keeping in mind that people are highly influenced by the previous experiences they normally have with the company, especially their first experience (Urban, 2010).

In this regard, Edvardsson (2005) described experience as the service encounter that is retained in the cognitive, emotional and behavioural responses of the customer and remains for the long-term. According to him, such experiences often affect the customers' quality perceptions and thus, major companies like Ikea and Volvo relate their service components to physical products stressing on the experienced-based quality, and therefore, physical products become the root of the customers' experiences.

There is still a significant room to which the role of experience as service quality predictor can be examined because in this context, there is notable lack of studies (Urban, 2010). The experiences of customers' service consumption may eventually impact the future

expectations of customers from rival providers. Based on Tam's (2005) longitudinal study, predictive expectations were greater after a positive experience and remained so after a negative experience. The duration of the constant service consumption is expected to influence the way customers perceived such a service, their expectations of it, and the frequency of their consumption. According to prior studies, individuals as customers learn to keep track of novel perceived marketers' approaches in a gradual manner (Friestad & Wright, 1994) and hence it is expected that they will also remember and learn from their experienced service while they are being served.

Thus, it is critical to identify the role of cooperation with a service provider in quality development and the impact on the consumption level of other competing services. Some other expectations are the impact of customers' expectations on their service perceptions and the overall quality of services. To this end, Edvardsson (2005) stated that customer experiences require emphasis and focus among scientific and business authors, in order to identify the role of customer experiences in the future situations.

When measuring the construct of prior experience, a number of researchers used Parasuraman's (1988) five-dimension measure to assess customers' prior experience arguing that perceived service quality means judging a service based on prior experience or after having used the service (Markovic & Raspor, 2010). Other researchers used different measures to assess customers' prior experience such as Urban (2010) who conducted a study to examine whether the intensity of prior experiences by the customer with the same firm and other firms affect perceived service quality. In Urban's (2010) research, three dimensions were used: length of experience, frequency of experience with the company (current), and frequency of experience with other (previous) companies.

For the purpose of this study, most of the previous views on the construct of prior experience and the way it influences service quality in the insurance industry were conducted on Western countries while the impact of prior experience on service quality in developing and emerging countries witnessed limited examination. Thus, this study attempts to fill in the gap in the literature regarding this matter by examining how the construct of customers' prior experience influences service quality in the insurance industry in an emerging country context, namely Saudi Arabia.

The role of experiences as a predictor of service quality has largely been untouched and researches dedicated to customers' experiences are scarce. The experiences of customer service consumption and their experience from rival service providers are expected to affect their future experience. Tam's (2005) longitudinal study showed expectations to be higher after a positive

experience after which it remains stable even after a negative experience. In other words, the duration of constant consumption of a specific service may affect the customers' perception of such a service and their expectations from it as well as their consumption frequency. Previous studies contended that individuals as customers learn to accept novel tactics of perceived marketers after a span of time (Friedstad& Wright, 1994) and hence, it is logical to expect that they remember and learn from their experience.

Meanwhile, Urban (2010) conducted a study that attempted to verify whether service quality is affected by the intensiveness of the consumers' prior experience with the same services provider in comparison with other services providers. This particular study setting was the auto-service sector, in which an empirical investigation was conducted. The findings of the research concluded that the whole aspect of service quality is not influenced by the consumer's experience, where this experience is prescribed by two aspects, namely by frequency of service used and lengths of relationships with a service provider. However, customers' longitudinal experience (e.g., perceptions concerning reliability and responsiveness, and expectations of service assurance) and the assurance quality gap do affect some aspects of service quality. Thus, in line with the above argument, the following hypothesis was formed.

*H2: There is a positive relationship between Prior Experience and Customer Loyalty.*

### III. RESEARCH METHOD AND THE STUDY MODELS

As far as this research is concerned, a group of items, objects, or people forms a sample that is taken

for measurement purposes from a larger population with the aim of representing the overall characteristics of the entire population so as to ensure that the findings from the research sample can be generalised (Bryman, 2008). In the present research, the population involved with this study includes the Saudi customers who have insurance policies with the Saudi health insurance companies. There are 26 health insurance companies listed on the Tadawul Stock exchange. The Saudi Arabian health insurance sector is dominated by the three big players - Tawuniya, Medgulf and Bupa Arabia. The top three insurance companies comprise of nearly half of the total market share, at 49.91%, in terms of GPW as of 2011 (Capital Standards, 2013). Specifically, 23.95% of health insurance customers are under Tawuniya health coverage, 15.19% of health insurance customers are under Medgulf health coverage, and 10.77% of health insurance customers are under Bupa Arabia health coverage.

The selection of the 400 respondents of health insurance in Saudi Arabia was based on their percentage in each of the 3 health insurance providers. In order to ensure that the targeted number of the 400 respondents is achieved, the questionnaire was distributed to a larger number of respondents. Specifically, the questionnaire was distributed to 800 customers. The reason why 800 were selected is because similar research studies that were conducted on service quality in Saudi Arabia generated a response rate of 77% (Alharbi, 2012). Thus if the 800 respondents generate 50% response rate, the final sample of 400 recommended by Sekaran (2003) could be secured.

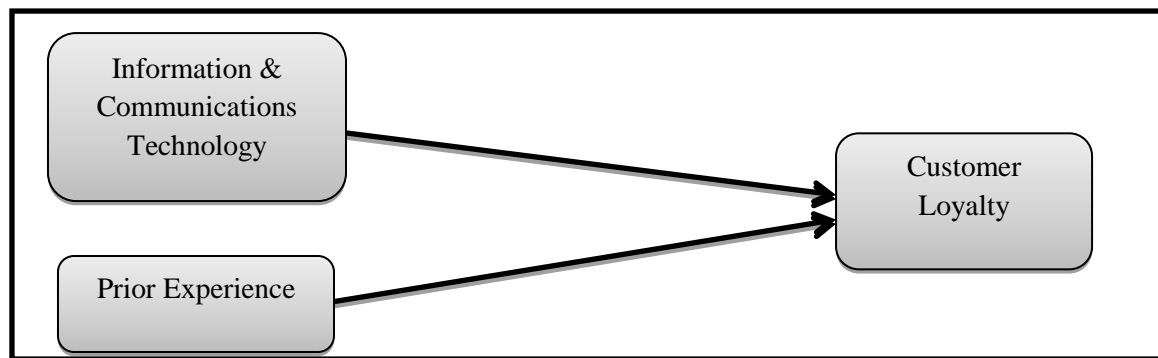


Figure 1: Research Framework

#### a) Measurements of Instruments

In this study, a 6-item measure as adopted from Aponte (2012) who conducted a study that attempted to examine how the advancements of technologies and internet that took place recently influenced customers'

perceptions about service quality. His attempt is aligned with the present study's attempts to examine customers' perceptions about ICT that took place due to the advancements in technology and internet.

For measuring prior experience in this study, Urban's (2010) dimensions of customer prior experience are adopted. Urban (2010) conducted a study to establish whether the intensity of prior experiences by the customer with the same firm and other firms affect service quality. The title of Urban's (2010) study is "Customers' Experiences as a Factor Affecting Perceived Service Quality". Three dimensions were used in Urban's (2010) research, which are, length of experience, frequency of experience with the company (current), and frequency of experience with other (previous) companies. Urban's (2010) measurement of prior experience is suitable for this study as the measure assesses customers' perceptions about their previous

experiences with their current insurance providers and also their previous insurance providers and this is what this study attempts to examine.

#### IV. DATA ANALYSIS AND RESULTS

The gathered data is analysed with the help of IBM SPSSs with the aim of providing a description of the data and of testing the hypotheses.

##### a) Descriptive Statistic

The continuous variables descriptive statistics are presented in Table 1 and they consist of mean, standard deviation, minimum, and maximum obtained via SPSS, version 21.

Table 1: Descriptive Statistics of Continuous Variables

Variables	Mean	Std. Deviation	Min	Max
ICT	3.614	.9354	2.00	5.00
Prior_Experience	3.307	.8323	1.33	5.00
Customer_Loyalty	3.415	.9684	1.40	4.60

##### b) Correlation Analysis

Table 2 offers a summary of the results from the correlation analysis. The findings revealed that the correlations are lower than 0.80, which meets Gujarati and Porter's (2009) contention that the correlation matrix should not go higher than 0.80 to ensure the absence of multicollinearity issue. The tolerance values of the present study's variables are presented in Table 3 and

they range between 0.426 while the VIF values ranged between 2.349 indicating that all the tolerance values are higher than 0.1 and VIF are below the threshold of 10 as recommended by Hair et al. (2010). Stated differently, both the tolerance and VIF values of the variables are within the recommended range. It can thus be concluded that the multicollinearity issue is non-existent.

Table 2: Results of Pearson Correlation Analysis

	1	2	3
1) ICT			
2) Prior_Experience	0.758***		
3) Customer_Loyalty	0.724***	0.812***	

Notes: \*\*\*Correlation is significant at the 0.01 level (2- tailed).

\*\*Correlation is significant at the 0.05 level (2- tailed).

\*Correlation is significant at the 0.1 level (2- tailed).

Table 3: Multicollinearity Test

Variables	Tolerance Value	VIF
ICT	0.426	2.349
Prior_Experience	0.426	2.349

##### c) Testing the Normality of the Error Terms

Pallant (2011) referred to linearity as the residuals that display a straight line relation with dependent variables' predicted scores. This study determined linearity via scatterplots. Normality was confirmed through the use of histogram and the normality probability plot (p-p plots) of the regression

standard residual via kamagorovsmiron, skewness and kurtosis value. Data distribution did not significantly deviate from the normal curve as presented in Figure 1 and hence data can be said to be normally distributed.

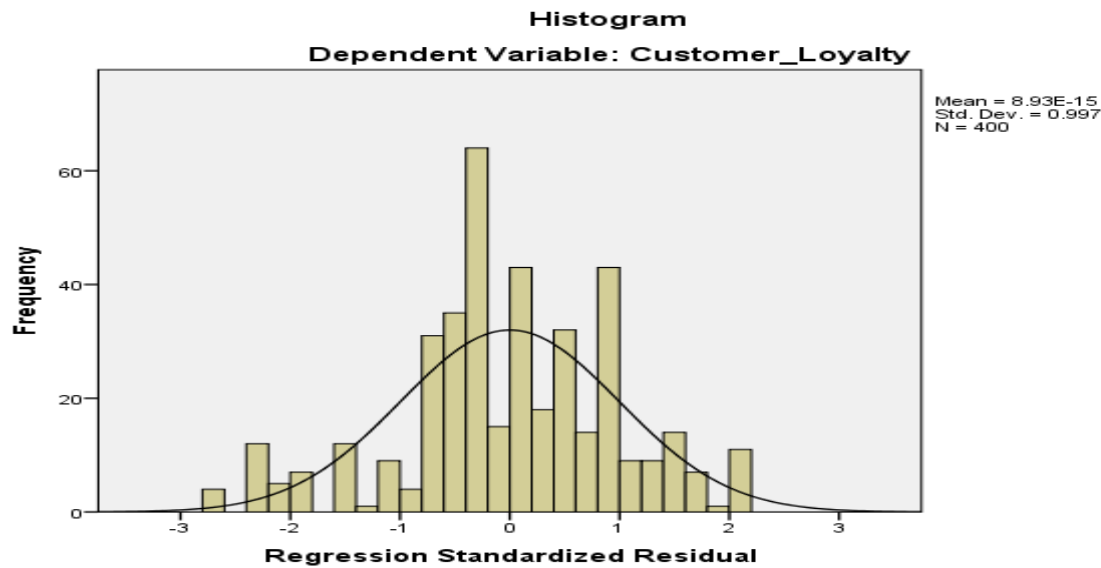


Figure 1: Histogram of the Regression Residuals

d) Regression Results of Model (Based on Customer Loyalty)

Table 4: Regression Results of Model (Dependent= Customer Loyalty)

Variables	Standardized Coefficients Beta	t-value	Sig.
ICT	0.257	5.963	.000
Prior_Experience	0.617	14.337	.000
R <sup>2</sup>			0.687
Adjusted R <sup>2</sup>			0.685
F-value			435.340
F-Significant			0.000

The results of the regression analysis ran on customer loyalty are presented in Table 4. From the table, it is evident that the  $R^2$  value is 0.687 indicating that the model explains 69% of the performance variance as measured by customer loyalty in what is deemed to be a respectable result. Moreover, the adjusted coefficient of determination,  $R^2$ , shows that the independent variables explains 0.685% of the variation in the dependent variable, which indicates that the performance variation as gauged by customer loyalty was statistically accounted for by the regression equation. The results listed in Table 4 also reveal that the model is significant and valid owing to the significant value of F where ( $F=435.340$ ,  $p<0.01$ ).

## V. DISCUSSION

a) Information and Communications Technology and Customer Loyalty

The results indicate that hypothesis H1 is supported. They show that Information and Communications Technology contributes in improving customer loyalty. Added to this, the results presented in Table 4 provide support for prior studies that reported relationship between the Information and Communications Technology and customer loyalty. One plausible explanation of the positive and significant relationship between information and communications technologies and service quality is that technology is described as a body of knowledge, tools, methods and innovations obtained from science and practice that is utilized to develop, design, produce and apply products, processes, systems as well as services (Pier, 1989). Therefore, utilizing the ICT is more likely to improve the



performance of the company especially with matters related to the customers and consequently will heighten the perceived quality of the services offered.

#### b) Customer Knowledge and Customer Loyalty

The finding, as apparent in Table 4, reveals that customer knowledge has positive and significant relationship with customer loyalty. This positive relationship between prior experience and service quality may be justified by the meaning of the customers' prior experience – it primarily refers to the previous encounter of the customer with an insurance company (Urban, 2010). It is also believed to be a significant factor in the determination of service quality in service firms, like the insurance industry as individuals are largely influenced by their first experience or prior experience with any service provider (Urban, 2010).

### VI. CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

This study is an attempt to examine the relationship between information and communications technology, customer knowledge and customer loyalty in Saudi Arabia's insurance industry companies. The sample was comprised 400 respondents of health insurance in Saudi Arabia and was obtained based on their percentage in each of the 3 health insurance providers. Moreover, this study used SPSS to test the relationship between independent variables and dependent variable. Finally, this study revealed a positive and significant relationship between both information and communications technology, and customer knowledge and customer loyalty in Saudi Arabia insurance industry companies.

Not unlike prior studies, the present one has limitations and recommendation for future studies. Firstly, this study used two antecedent factors of service quality and as such, future researchers may consider studying other factors like communication and customer knowledge with customer loyalty. Secondly, this study examined the direct relationship between the two antecedent factors of service quality and customer loyalty – it recommends future studies to take into account the same relationship through a third variable such as culture and customer satisfaction. Finally, this study was applied in the context of Saudi Arabia and hence future researchers are recommended to apply in other countries, particularly those in the GCC region.

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## Influence of Factors on Female Consumers' Fashion Apparel Buying Behavior in Bangladesh

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**Abstract-** The trend of female branded fashion clothing is growing rapidly in retail industry across the globe. The study purpose is to examine Bangladeshi female consumers' fashion apparel buying behavior and key factors of branded clothing. The study nature is descriptive and primary data were collected from survey questionnaires using non probability judgmental sampling. Data were analyzed by descriptive statistics, ANOVA, multiple regression and factor analysis. The results observed that brand status, attitude, popularity, image, premium, self-respect, and reference groups were found to have positive effects on consumer buying behavior. The important findings help to highlight the factors influencing consumer involvement in purchasing fashion apparel. The study contribution is to make clear understanding for marketers about the preferences of consumers to attract and maintain target consumer groups and to understand the factors influencing the fashion apparel purchase to formulate diversified and innovative marketing strategies towards branded fashion industry in Bangladesh.

**Keywords:** brands, fashion, apparel, consumer, female.

**GJMBR - E Classification :** JEL Code : N30



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# Influence of Factors on Female Consumers' Fashion Apparel Buying Behavior in Bangladesh

Md.Farijul Islam<sup>α</sup>, Md. Mostafizur Rahman<sup>σ</sup> & Md. Alamgir Hossain<sup>ρ</sup>

**Abstract-** The trend of female branded fashion clothing is growing rapidly in retail industry across the globe. The study purpose is to examine Bangladeshi female consumers' fashion apparel buying behavior and key factors of branded clothing. The study nature is descriptive and primary data were collected from survey questionnaires using non probability judgmental sampling. Data were analyzed by descriptive statistics, ANOVA, multiple regression and factor analysis. The results observed that brand status, attitude, popularity, image, premium, self-respect, and reference groups were found to have positive effects on consumer buying behavior. The important findings help to highlight the factors influencing consumer involvement in purchasing fashion apparel. The study contribution is to make clear understanding for marketers about the preferences of consumers to attract and maintain target consumer groups and to understand the factors influencing the fashion apparel purchase to formulate diversified and innovative marketing strategies towards branded fashion industry in Bangladesh.

**Keywords:** brands, fashion, apparel, consumer, female.

## 1. INTRODUCTION

Now a- days, Fashion apparel is a Billion- dollar industry that generates employment for millions of people all over the world. Throughout history fashion has greatly influenced the fabric of societies. Fashion is a general term for a popular style or practice, especially in clothing, footwear, accessories, makeup etc. Fashion refers to a distinctive and often habitual trend in the style with which a person dresses, as well as prevailing styles in behavior. Fashion also refers to the newest creations of textile designers. The industry is characterized by short product life cycles, erratic consumer demand, an abundance of product variety, and complex supply chains. Consumer market for fashion apparel has become more varied by in surge of designer brands, store brands, personalization, customs and advertisement in the global market place. Since the ancient age, there has been an intimate relationship between clothes and humans. Clothing reflects the culture and progress of a society and the personality of individuals.

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That is why we see diversity in the design of clothing among different cultures and among individuals. As the design of clothes is important to consumers in terms of their taste and cultural orientation, fashion has appeared as the driving force. But fashion or design is shaped by dominant cultures as well as economic, environmental, religious and political forces of the time. In the background of fashion, each decade has seen the emergence of a new appear and before that trend settles down another appears. Bangladesh is proud to have a variety of handmade crafts like Jamdani, Rajshahi silk, Reshmi silk. Perhaps, the most famous yarn from this part of the subcontinent is Dhaka Muslin, a superfine silk yarn embellished with intricate hand embroidery. A clear understanding of preferences of consumers will help the marketer to attract and maintain their target consumer group. Clothing sector firms are competing to increase their profit share in the market and among these firms; branded clothing has shifted the conventional clothing interest of people. The increasing use of fashion clothing and the emerging market has intrigued foreign as well as local brands to provide services to its customers. It is today easy to buy highly fashionable apparel at a relatively low price, particularly regarding female garments. It is majorly seen that women view shopping as a fun, satisfying, hedonic and joyful activity. The female attitude towards shopping seems very positive and they look forward to this communal event with cheerful prospects. Clothing is an important part and parcel of women's life and plays an imperative role in building the identity of the women. The dynamic factors of branded clothing adoption are defined and their relationship is explored with consumer behavior namely: brand status, brand attitude, willingness to pay premium, self-respect, brand name, brand popularity, brand image, reference groups and cultural impact. Recently, in Bangladesh a significant amount of local Boutique houses and men's fashion houses have launching their products through targeting young college and university consumers and professionals. The study considers college and university students as a homogeneous market segment. There is limited literature available that clearly identifies the buying behavior of this particular group. Role of brand's on consumer buying behavior is a very dynamic matter and is of great significance in Bangladesh. Fashion industry

includes cloth, footwear and other accessories like and Bohdanowicz, 1994). The focus of this research is on cloth segment. Mintel (2008) initiates that 20-24 and 25-34 age groups are of utmost importance to the marketers as women are less anxious about quality than style in their cloth. In terms of spending on cloth, age is a stronger determinant of women's budget than their socio-economic status. Branding more or less for centuries has been a mean to differentiate goods of one producer from those of another. Brand can be seen from two perspectives one from companies point of view and other from consumer's point of view. Amber (1992) proposes the definition of branding as the promise of the bundles of attributes that someone buys and provides satisfaction. The study by Grant and Stephen (2005) examines younger teenage girls purchasing decisions for fashion clothing and the impact of brands on their behavior. The attributes that make up a brand may be real or deceptive, rational or emotional, tangible or invisible. Vieira (2009) proposes the fashion branding could be defined as a broadly based behavioral observable fact evidenced in a diversity of material and non material contexts. It shows the source of the product and help aware consumers to differentiate the product from its competitors. The core base of naming a brand is that it is unique; can be easily discriminated from other names; easy to remember and is eye-catching to customers. A victorious brand must corresponds a distinct benefit to the consumer and the more that it delivers what it promises, the greater will be the word of mouth recommendation from satisfied consumers to others. Brands put in a nutshell, a whole range of communication, learning, history, feeling about a product or company within a simple name and logo.

That has a great effect on the regulatory policies made cosmetics and even furnishing (Clamp to protect customers and the marketing strategies made to satisfy target consumer needs. Park et al. (2006) finds that involvement is a helpful metric for strengthening consumer behavior and segmenting consumer markets. The review expressed that a lot of research works have been conducted on this subject area but in a different economic and cultural status. In Bangladesh no in depth studies has been conducted on the subject. Such research gaps motivated the present researchers to undertake a study. This study is a modest attempt in this direction and aims to focus on female buying behavior for fashion apparel in Bangladesh.

## II. RESEARCH METHODOLOGY

The research is conclusive in the form of descriptive design. Primary data were collected through face to face interview using survey questionnaire and secondary data were collected from published journals, books and websites etc. Sample size was 200 and non probability judgmental sampling was used to select sample. The measurement technique was non-comparative scaling in the form of itemized rating scaling technique through 5 point Likert scale ranging from 1 to 5 where 5= Strongly agree, 4=Agree, 3=Neutral, 2= Disagree and 1= strongly disagree. The reliability and validity were tested using Cronbach's alpha and KMO Bartlett's test of sphericity respectively. The study was confined to Rangpur division. The collected data were analyzed using descriptive statistics, one way analysis of variance (ANOVA), multiple regression, factor analysis, (principle component analysis) with the help of SPSS.

a) A proposed model for female consumer fashion apparel buying behavior

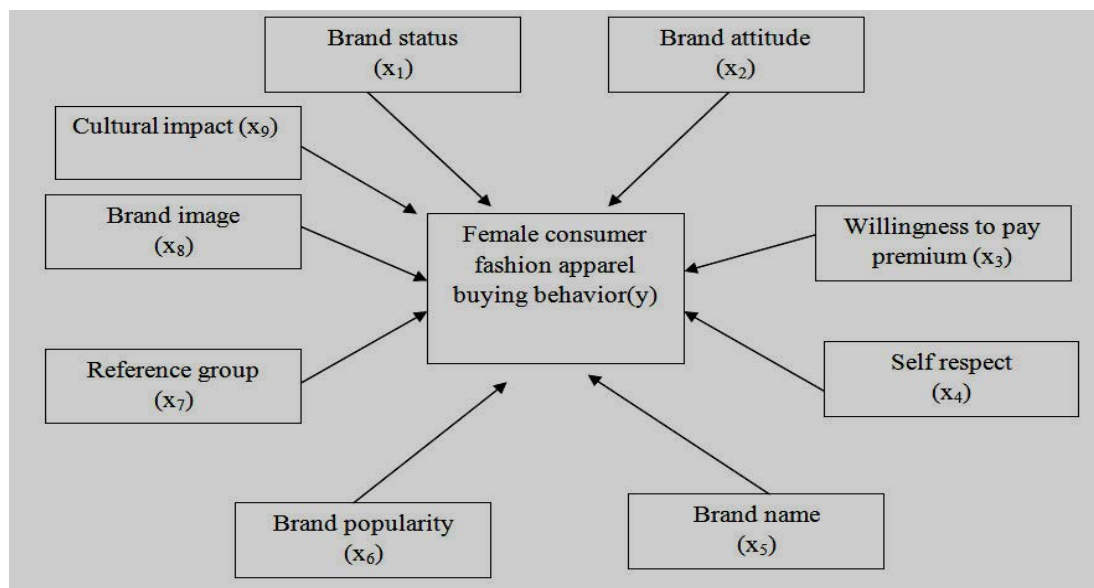


Figure 1: Proposed FABB Model.



b) *Research question*

Do the factors influence on female consumer fashion apparel buying behavior?

c) *Hypotheses of the study*

$H_1$  = There is a relationship between brand status and female consumer fashion apparel buying behavior.

$H_2$  = There is a relationship between brand attitude and female consumer fashion apparel buying behavior.

$H_3$  = There is a relationship between willingness to pay premium and female consumer fashion apparel buying behavior.

$H_4$  = There is a relationship between Self respect and female consumer fashion apparel buying behavior

$H_5$  = There is a relationship between brand name and female consumer fashion apparel buying behavior.

$H_6$  = There is a relationship between brand popularity and female consumer fashion apparel buying behavior

$H_7$  = There is a relationship between reference group and female consumer fashion apparel buying behavior

$H_8$  = There is a relationship between brand image and female consumer fashion apparel buying behavior.

$H_9$  = There is a relationship between cultural impact and female consumer fashion apparel buying behavior.

d) *Equation of the proposed model*

$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + \beta_8 x_8 + \beta_9 x_9 + \epsilon$   
Where,  $\beta_0, \beta_1, \dots, \beta_9$  - intercept,  $x_1, \dots, x_9$  - variables and  $\epsilon$  - coefficient of error term.

### III. OBJECTIVES OF THE STUDY

The objective of the study is to identify the important factors of purchasing branded fashion apparel for female in Bangladesh and to find the impact of these factors on consumer buying behavior. More specifically, the study aimed to achieve the following specific research objectives:

- i) To analyze the key influences on female consumers buying behavior in Bangladesh.
- ii) To appraise the impact of brand status, brand attitude, willingness to pay premium, self-respect, brand name, brand popularity, reference groups, brand image, cultural impact on consumer involvement in purchasing fashion apparel.

### IV. RESULTS OF THE STUDY

The table 2 shows that the KMO measure of sampling adequacy and Bartlett's Test of Sphericity. Kaiser (1974) advocated accepting values greater than 0.5. Furthermore values between 0.7 and 0.8 are good. So our KMO measure of sampling adequacy test is 0.861 or 86 % is reliable and acceptable for further computation. For these data Bartlett's test is highly

significant ( $p < 0.05$ ), and therefore factor analysis is appropriate for this study. The Cronbach's alpha reliability test has been used to identify the validity of items used in the survey. According to Hendrickson et al (1993) and McGraw and Wong (1996) the alpha of a scale should be greater than .700 for items to be used together as a scale. The value is .824 and can be regarded as quite large. This indicates that the 10 item scale is quite reliable.

a) *Multiple Regression Analysis*

The purpose of multiple regression analysis is to investigate the relationship between the independent variables and the dependent variable. The model summary provides the R,  $R^2$ , adjusted  $R^2$ , and the standard error of the estimate, which can be used to determine how well a regression model, fits the data. The value of R represents the multiple correlation coefficients. It is seen from the table that the value of R equals 0.761 indicates a good level of prediction. The  $R^2$  value represents the coefficient of determination which is the proportion of variance in the dependent variable that can be explained by the independent variables and the value of R square is equivalent to 0.580 which means that 58% of the variance in the dependent variable of buying behavior can be accounted for by a variation in the independent variables. The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data. The table shows that the independent variables statistically significantly predict the dependent variable,  $F(8, 191) = 32.348$ ,  $p < .0005$  (i.e., the regression model is a good fit of the data). The coefficient is significant at  $\alpha = 0.05$ . here brand status, willing to pay premium, self-respect are not significant to female consumer fashion apparel buying behavior. Brand attitude, Brand name, brand popularity, reference group and brand image are significant to female consumer fashion apparel buying behavior. Unstandardized coefficients indicate how much the dependent variable varies with an independent variable, when all other independent variables are held constant.

b) *Communalities*

This is the proportion of each variable's variance that can be explained by the factors. With principal factor axis factoring, the initial values on the diagonal of the correlation matrix are determined by the squared multiple correlation of the variable with the other variables. The values in extraction indicate the proportion of each variable's variance that can be explained by the retained factors. The communalities range from 0 to 1. Zero means that the common factors do not explain any variance and one means that the common factors explain all the variance. The communalities of the column leveled extraction reflect the common variance in the data structure. We say that 41.2 percent of the variance associated with question 6

is common or shared variance. We see from the result that relatively high numbers that is a good result.

*Table 1:* Demographic Profile of Respondents

Variable	Category	Frequency	Variable	Category	Frequency
Age	21-30	188	Occupation	Service	15
	31-40	10		Others	6
	41-50	2	Income	Less than 10000	139
Sex	Female	200		10000-30000	44
Occupation	Student	172		31000-50000	16
	Business	7		51000- above	1

*Table 2:* KMO and Bartlett's Test and Reliability Statistics

KMO and Bartlett's Test					Reliability Statistics	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy			.861			
Bartlett's Test of Sphericity	Approx. Chi-Square		515.697	Cronbach's Alpha		No. of Items
	Df		36	.824		10
	Sig.		.000			

*Table 3:* Multiple Regression Analysis

Model Summary				ANOVA <sup>b</sup>					
R	R Square	Adjusted R Square	Std. Error of the Estimate		Sum of Squares	df	Mean Square	F	Sig.
.761 <sup>a</sup>	.580	.562	.54185	Regression	77.390	8	9.674	32.948	.000a
				Residual	56.078	191	.294		
				Total	133.469	199			

a. Predictors: (Constant), Brand image, Willing to pay premium, Brand popularity, Reference group, Brand attitude, Brand status, Brand name, Self-respect and Dependent variable: female consumer fashion apparel buying behavior.

*Table 4:* Coefficients<sup>a</sup>

Constant	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
	-1.041	.315		-3.305	.001
Brand status	-.030	.067	-.025	-.440	.660
Brand attitude	.187	.065	.164	2.856	.005
Willing to pay premium	.049	.049	.053	.991	.323
Self-respect	.127	.071	.107	1.784	.076
Brand name	.123	.058	.119	2.113	.036
Brand popularity	.183	.057	.169	3.206	.002
Reference group	.305	.058	.280	5.260	.000
Brand image	.292	.061	.269	4.764	.000
Cultural impact	.306	.570	.270	5.160	.000

a. Dependent Variable: Female consumer fashion apparel buying behavior



Table 5: Communalities, Component Matrix and Rotated Component Matrix<sup>a</sup>

	Communalities		Component		Rotated Comp. Matrix	
	Initial	Extraction	1	2	1	2
Brand status	1.000	.540	.610	.410	.226	.699
Brand attitude	1.000	.517	.669	.263	.363	.621
Willing to pay premium	1.000	.662	.494	.647	-.011	.814
Self-respect	1.000	.575	.715	.253	.405	.641
Brand name	1.000	.493	.646	-.274	.677	.184
Brand popularity	1.000	.412	.581	-.272	.625	.145
Reference group	1.000	.441	.626	-.223	.630	.211
Brand image	1.000	.589	.664	-.386	.760	.107
Cultural impact	1.000	.724	.816	-.240	.790	.316

Extraction Method: Principal Component Analysis.

Table 6: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.829	42.547	42.547	3.829	42.547	42.547	2.796	31.067	31.067
2	1.125	12.500	55.047	1.125	12.500	55.047	2.158	23.980	55.047
3	.775	8.614	63.661						
4	.743	8.256	71.917						
5	.665	7.386	79.303						
6	.555	6.169	85.472						
7	.524	5.823	91.295						
8	.463	5.147	96.442						
9	.320	3.558	100.000						

#### c) Component matrix

The component matrix indicates how each item of the analysis correlates with each of the three retained factors. Negative and positive correlations carry the same weight. At this stage SPSS has extracted 2 factors. All loadings less than .40 are suppressed in the output that's why there are blank spaces for many of the loadings. This table 5 contains the unrotated factor loadings, which are the correlations between the variable and the factor. Because these are correlations, possible values range from -1 to +1.

#### d) Total Variance Explained

The initial number of factors is the same as the number of variables used in the factor analysis. However, not all factors will be retained. Initial Eigenvalues are the variances of the factors. Because we conducted our factor analysis on the correlation

matrix, the variables are standardized, which means that the each variable has a variance of 1, and the total variance is equal to the number of variables used in the analysis, in this case 10. Total column contains the eigenvalues. The first factor will always account for the most variance (and hence have the highest eigenvalue), and the next factor will account for as much of the left over variance as it can, and so on. Hence, each successive factor will account for less and less variance. % of variance contains the percent of total variance accounted for by each factor. Cumulative % contains the cumulative percentage of variance accounted for by the current and all preceding factors. Rotation sums of squared loadings values in this panel of the table represent the distribution of the variance after the Varimax rotation. Varimax rotation tries to maximize the variance of each of the factors, so the total amount of variance accounted for is redistributed over

the three extracted factors. The correlation matrix of all 9 variables has been further subjected to principal component analysis. Any factor that has an Eigenvalue less than one does not have enough total variance explained to represent a unique factor and is therefore disregarded. The Eigenvalues associated with each factor represent the variance explained by that particular linear component and SPSS displays the Eigenvalues in terms of the percentage of variance explained. These factors have accumulated for 43 %, 13% and 9% of variation. This implies that the total variance accumulated for by all three factors is 63.66% and remaining variance is explained by other factors. So factor 1 explains 43% of total variance. It is clear that first few factors explain relatively large amounts of variance where as subsequent factors explain a small amount of variance.

#### e) Rotated Factor Matrix

This table contains the rotated factor loadings (factor pattern matrix), which represent both how the variables are weighted for each factor but also the correlation between the variables and the factor. Because these are correlations, possible values range from -1 to +1. The rotation of the factor structure clarified things considerably. There are three factors and variables load very highly onto only one factor. The rotated component matrix indicates how each item correlates with each factor.

#### f) Scree plot

A Scree plot is a graph that plots the total variance associated with each factor. It is a visual display of how many factors there are in the data. The Scree plot graphs the Eigenvalue against the factor number. We can see that although there are 9 principle components only three factors have Eigenvalues over one. So we can expect three principle components in the data. The curve indicates the inflexion on the curve.

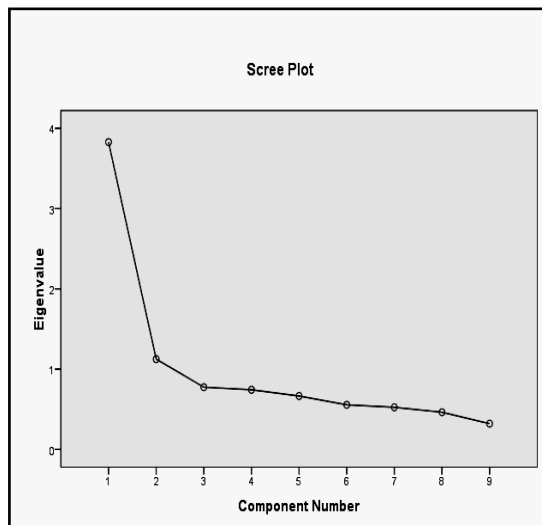


Figure 2: Scree plot

## V. MANAGERIAL IMPLICATIONS

The fashion related apparel businesses in Bangladesh are growing at an exponential rate and are increasingly fascinating the attention of the entire world through ensuring the standard and quality product. Consumer market for fashion apparel has become more varied by in surge of designer brands, store brands, personalization, customs and advertisement in the global market place of today. From the above analysis it is clear that females have particular perspectives and motives behind their purchases. A clear understanding of preferences of consumers will help the marketer to attract and maintain their target consumer group. It can be concluded that this study can be useful to marketers trying to promote products to consumers, because it adds to the knowledge base. The research findings contribute to the literature of consumer involvement in fashion apparel and dimensions of consumer buying behavior. Along with the discussion on the extant literature, hypotheses were developed to ascertain the consequential effect of brand status, brand attitude willingness to pay premium, self-respect, brand name, brand popularity, reference groups and brand image on consumer involvement in fashion apparel. We see that the majority of the values are greater than 0.05. So the relationships are correlated among variables. The result of the study highlights the pattern of relationship among variables that were proved by the analysis. The study finds that the female consumers who possess strong positive attitudes towards brands show high level of involvement in fashion apparel, along with that self-respect is also the most important element as consumers use brand related product that matches with their own personality. Consequently, consumers who perceive higher self-respect will generally hold a high level of involvement in fashion or branded apparel. As a retailer of apparel, all these insights have to be embedded in the policy formulation to make the purchases a real time customer delight. However on the whole this study examined various brand related variables including brand status, brand attitude, willingness to pay premium, self-concept and reference groups using fashion apparel brands as the focal object showing their effect on consumer involvement in fashion apparel. It is proposed that for developing brand and related decision for the decision maker(s) and marketer(s) to know about fashion marketing concept and how fashion marketing works by using current trends in fashion to analyze, develop, and implement sales strategies. Fashion marketing investigates the relationship between fashion design and marketing including the development, promotion, advertising and retailing aspects. Successful fashion marketers understand that recognizing consumer trends, strong branding, and a desirable product image are all essential elements to build an effective and meaningful

campaign about fashion apparel in the global intense competitive market to uphold the image of Bangladesh as a hub of fashionable apparel industry.

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## Consumer's Behavior and Effectiveness of Social Media

By Ghulam Rasool Madni

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**Abstract-** Consumers began using more online sources today, thanks to the rapid development of technology and communication channels. The most important of these tools are social media. Consumers access to the information they need about goods and services which will be awarded through social media dramatically. It is clear that now day, social media components are popular like Facebook and Twitter have got an attention to consumer markets. Therefore, this study is aimed to determine the effect of social media in our lives in recent years and to determine the effects of social networks on the purchasing behavior of consumers in Pakistan. This study consisted of a sample of 1,000 young consumers between the age group of 18-50 years using social media platforms having an account in any of the social networks. Questionnaire was used to get the data of the study. The results form collected data indicate that the social media has a significant impact on consumption behavior in Pakistan.

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CONSUMERS BEHAVIOR AND EFFECTIVENESS OF SOCIAL MEDIA

*Strictly as per the compliance and regulations of:*



RESEARCH | DIVERSITY | ETHICS

# Consumer's Behavior and Effectiveness of Social Media

Ghulam Rasool Madni

**Abstract-** Consumers began using more online sources today, thanks to the rapid development of technology and communication channels. The most important of these tools are social media. Consumers access to the information they need about goods and services which will be awarded through social media dramatically. It is clear that now day, social media components are popular like Facebook and Twitter have got an attention to consumer markets. Therefore, this study is aimed to determine the effect of social media in our lives in recent years and to determine the effects of social networks on the purchasing behavior of consumers in Pakistan. This study consisted of a sample of 1,000 young consumers between the age group of 18-50 years using social media platforms having an account in any of the social networks. Questionnaire was used to get the data of the study. The results form collected data indicate that the social media has a significant impact on consumption behavior in Pakistan.

## 1. INTRODUCTION

"Traditional marketing is not dying – it's dead!" (Zynman 1999)

The advent of Web 2.0 is most impressive development in memories of economic paradigm. Social media with Web 2.0 encourages user-generated contents and also allows the users to exhibit contents to share among networks. Social media has capacity to put the consumers at the central role of the business activities and provides a new aspect of tools for interaction of consumers. Basically, vendors have to think that how the social media has affected consumer buying behavior.

"Within 30 years, radio reached 50 million listeners, while it took only 13 years for television to reach 50 million viewers. Strikingly, the internet reached 50 million users in only four years, indeed, Facebook reached that figure in one and half years. Designed for students at Harvard University in 2004, Facebook is a single phenomenon. In 2009, Facebook had 100 million members, and by the end of 2010, that number increased to 500 million users worldwide. As social media grows at a faster rate than other communication programs, the importance of social media increases and following its development has become even more challenging." (Civelek, 2009; Şener, 2012).

The above stated figures show the significance of the social media in current digital area. A very large

number of people spend a lot of time for different activities including buying and buying decisions on social media. The market share for buying via adopting the source of social media is increasing rapidly day by day. For example, share of Facebook increased by 0.22 percent from November 2011 to October 2011. YouTube has the solid expansion amid online social media site with a 0.67 percent from November 2011 to October 2011. These measurements highlight the relationship of online social networking sites have been grown (Hitwise, 2011)

By keeping in view above such large amount of social media campaigns, entire companies are converting their marketing methods to the social media for the reason of its easy approach to their aimed customers and clients. Besides, it is also cost effective source for advertisement. That's why, most of the firms or companies have official pages on the websites of social media which are playing an important role to capture the market. This campaign and information leaves a significant impact on clients. It also provides a competitive picture of the firms and thus it is a new emerging trend which needed to be focused and analysis.

The altered trend of new internet users need to be focused and the factors of social media that has the impact on procuring objectives of buyer require to be properly analyzed. Social Media is altering customer's decisions but not much research has done on this aspect. Its effect on the customer's purchasing behavior may turn and to be altered. It is very reason that it is aimed to analyze the influence of social media on buying decision of consumers in a developing country like Pakistan in different age groups, territories and at different educational levels. Such an investigation could lead to know that how social media is affecting consumer's decisions when they are purchasing a product, duly influenced by social media.

To investigate the above, a survey research is employed for collection of data. A survey questionnaire is prepared that relates to users of social media

Now such type of market structure has emerged that consumers and producers have come very close by internet that did not happen before. "An average Internet user has 669 social ties. Approximately 500 million Tweets sent per day, at about 600 Tweets per second. Facebook has more than 600 million daily

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active users, with over 1.5 million business pages and 30 billion pieces of content shared on a monthly basis. LinkedIn has more than 225 million professionals worldwide, including all Fortune 500 companies. Changes in consumer behavior due to social media have an interesting dimension in the present day marketing." (Hampton et al. 2011)

A study titled, "Social Networking Sites as Advertisement Environment" provide evidence that consumers change their choices by the comments of their acquaintance on social media while making a decision to purchase, and friends' outlook lead consumers to select a specific good or service (Hacıfendioğlu, 2011).

By keeping in view the above stated statistics, this study has objectives to explain that how consumers are receiving, dispensing and deciding to choose the information on social networking sites prior to buying and to examine whether opinions provided by social media communities affect consumer's behavior or not among the different age, gender and education groups.

## II. SOCIAL MEDIA

### a) What is Social Media

The terms "social media" and "Web2.0" are very interrelated but not precisely identical, and they are different for their utilization. First of all, we define these

terms in order to avoid any confusion; in spite of that social media is the central part of this study.

"Web 2.0 is the business revolution in the computer industry caused by the move to the Internet as platform, and an attempt to understand the rules for success on that new platform." (O'Reilly 2006). O'Reilly presented a business view of relationship with Web 2.0 as the "harnessing of collective intelligence", where Web 2.0 gives a place with user-generated substance. "Alternatively, Web 2.0 is a platform whereby content and applications are continuously modified and exchanged by all users in participatory and collaborative manner, and no longer merely created and published by individuals" (Kaplan and Haenle in 2009).

There is a lot of discussion regarding general definition of social media because social media has been converting and integrating into the budding expansion of new media. By keeping in view the following figure, Dann and Dann (2011) showed that social media is structured upon the basis of interconnected components like communication media, content, and social interaction. Social media provided a different dimension of socialization of information so communication flow has been easier and much people are able to spread useful information with a number of online audiences and conversation leads to a worldwide effect.

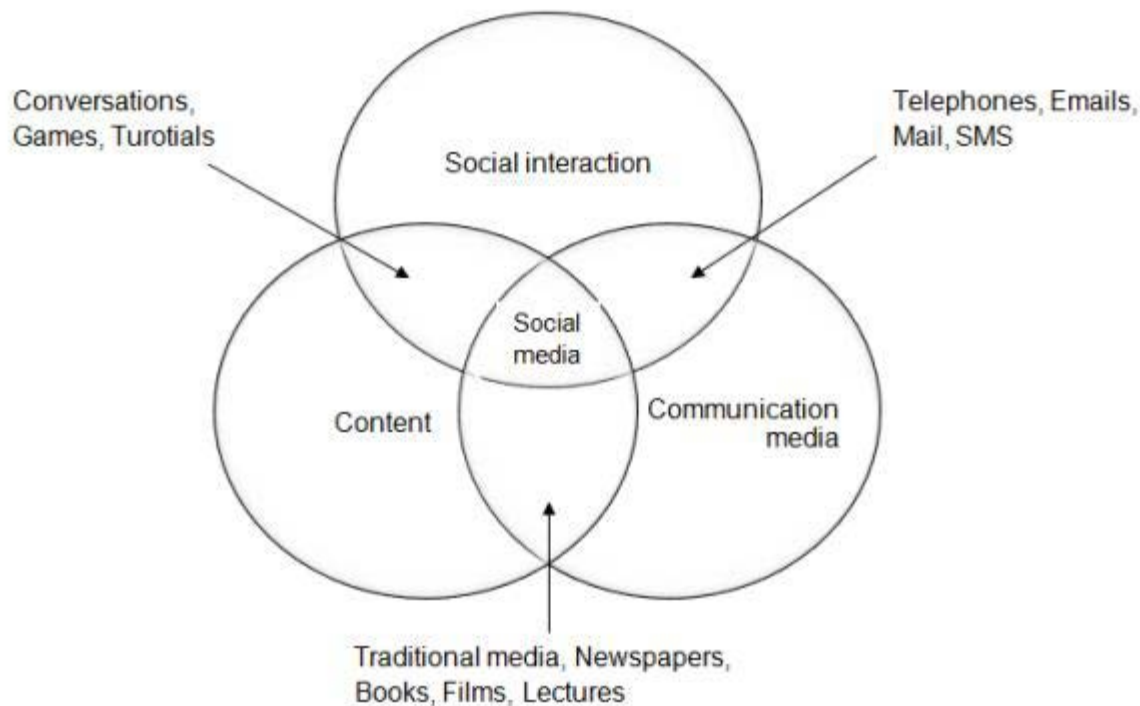


Figure 1: Social Media Components (Dann and Dann 2011)

The social media make a place for actions and attitudes between people of different communities that meet by internet for sharing of opinions and knowledge by operating chatty sites or sources. Basically, social media depicts the new ways to emphasize and facilitate the process of editing, creating, commenting, and sharing.

#### b) *Types of Social Media*

According to Lee E. (2013), there are following five different categories of social media that are highlighted here.

- 1) Social networking sites
- 2) Social news
- 3) Media sharing sites
- 4) Blogs
- 5) Micro blogging

##### i. *Social Networking Sites*

Social Networking Sites (SNSs) provide the facility for individuals to connect with others having similar backgrounds and interests like Facebook and MySpace etc. These sites have generally some common features which are following;

- Consumers are capable to make interacting accounts.
- A catalog of recommended friends.
- Users navigate their list of recommended friends and those provided by other users in the system.

For users, these sites are the same as outlets by offering many chances to accumulate the wealth and to establish a nearer connection to the commodity by many different ways.

##### ii. *Social Bookmarking Sites and Social News*

Social News sites and Social Bookmarking are very alike and have popularity in online social community. Social News provide the facility to people not only to be in organize of their news flow, but also permit persons to "submit and vote on content around the Web" but the center significance of the second one is to permit users "to collect and interesting links they have discovers and may wish to revisit." (Zarella 2010) These sites permit the users to find other networking sites which have been explored by a great number of users already. Now, social news sites have altered the image of newspapers. These sites empower the users regarding personal and targeted news by bringing the users in the center of debate and free interaction.

##### iii. *Media-Sharing Sites*

Media-Sharing sites (e.g. YouTube and Flickr) are channels where users can save and share their files like pictures and videos etc. with other community members. There are countless prospects by the linkages to these sites because of specific places inside

the social media sector has been an iron grip to online communities having inexpensive technology. One of the main factors of media-sharing sites has to be underline is the *tag*. "A tag is a word assigned to a piece of content that helps describe it, which means that businesses have to acknowledge the importance of the search words on the search engines" (Zarella 2010).

#### iv. *Blogs*

"Blogs create good hubs for other social media marketing tools (videos, hyperlinks, pictures, and so on), because they can be integrated into the platforms and posts; besides, blog software provides a variety of social features such as comments, blog rolls, trackbacks, and subscriptions" (Zarella 2010). Blogs permit every user to circulate and to connect online debate. Some of them bloggers have no view point restrictions and have approach to the entire Web so the posts on blogs can impact personal, products, or brand reputation freely that much helps the consumers.

#### v. *Micro Blogging*

Micro blogging permit people to share their short messages via mobile phones, e-mails, or the internet. Micro blogging is a type of information network that is similar to blogging but it restricts the limit of words for every message and inspires a quick way of communication like Twitter. "Twitter, launched in 2006, is one of the primal and leading micro blogs that currently has over 140 million users as of 2012 and handles over 1.6 billion search queries per day" (Twitter 2012). Many firms are operating Twitter for stretching the sphere of business and influencing the decisions of customers by taking the advantage of the relationship binding and building.

### III. LITERATURE REVIEW

Symbolic interactionism theory by Mead describes that how people shape their individuality and make a veracity of informal norms by having interaction with other people. The methods of human interaction are going to change over time but this theory is still applicable in modern world of digital age. If we apply the theory of symbolic interactionism to social media, it can be postulated that users of social media communities form individuality and offer a gigantic sphere to establish correlation. This literature review will provide a further look at Mead's theory of symbolic interactionism and its applicability to social media. It will be helpful to examine that how social media users establish the links that have an impact on their buying decisions.

#### a) *Symbolic Interactionism Theory*

"The theory of symbolic interactionism consists of three fundamental principles that narrate how people interact with each other through meaning, language, and thought to create our self. Interactions are central to the development of one's social identity and functioning

according to combined norms and values" (Griffin, 2009). It elaborates that how an individual forms a social truth. The method one works with other people, obtains from the sense one allocates to diverse relations. For example, a person may observe a protestor on the street shouting. This observer may perceive the protestor as horrible and disturbing while a second observer may consider this protestor as inspiring and progressive. Both observers allocated a meaning to the protestor, which builds a reality.

The language is a medium that is used to assign a meaning. When a person observes the protestor then s/he utilizes a language to allocate a specific perception to the protestor. Calling the protestor disturbing allocates a negative sense to the protestor through language. Finally, thought arises by deciphering the symbols and their perceptions. When all these three principles of meaning, language, and thought take place, the indication of a "self" commences to appear.

Mead presented the theory before the launching of internet but it may be applicable to social media interactions. If we have a look upon the Mead's concept of the looking protestor, we can analyze that how a Facebook page creates our "self." Symbolic interactionism theory plays a vital role for formation of Facebook profiles and how users discover themselves by making online interaction.

#### b) *Hyper-symbolic Interactionism Theory*

Hyper-symbolic interactionism is a modified theory of symbolic interactionism for social media because early theories were constructed before the invention of the advent of Internet.

According to Lynch & McConatha (2006), "Hyper-symbolic interaction theory explains the creation of a new type of reality based on symbols found digitally. The theory comprises the smallest symbols such as the I's and O's of computer language and the tiny pixels of digital imagery, as well as the complex contemporary imagery of advertisements and commercials produced daily. The larger symbols and imagery that these details create lead to new values and norms different than other non-digital communities. This digital community is filled with marketers and advertisers, which in turn affect the reality humans' construct, including the norms and values we abide by, as well as the meaning we give to symbols. We socialize very differently in digital reality than we do in real life. Additionally, the increase in digital advertising causes us to perceive marketers and ads as reality."

Now a bird look of different studies has been given here that describes the relationship between social media and consumer's behavior.

According to Drell (2011), 20% users of Facebook utilize the famous social media to search a commodity before its purchase, and 42% inquired about a product by online means. This study analyzed the

online behavior of social media consumers and showed two main classes of online sharing: low sharers and high sharers. High sharers of online consumers are judged 20% who were teenagers, devoted to brands, and had many of electronic instruments. Low sharers are 80% of online consumers, were normally older, much interested with quality rather than brand.

There is another investigation regarding the behavior of millennials using social media having an impact on buying decisions. Millennials are consumers who are mid-teens to mid-30s. According to Greenleigh, (2012), millennials "are hyper-social, constantly connected to social media and they care that about what others are doing, buying, and enjoying, strangers as well as friends." This study elaborated that 51% millennials trust strangers when they are buying goods, over relatives or friends. The study shows that 84% of millennials take view from social media communities before buying a commodity which is a proof of shifting the traditional buying to the modern digital era for choices and impacting the consumer's behavior.

Forbes & Vespoli (2013) made analysis on a sample of 249 consumers' purchases to examine the category of purchased product, and the prices of goods. The conclusion of this study shows that buying decision of consumers whether they are purchasing expensive or inexpensive goods are affected by the opinions of their online friends or contacts. According to the study that 59% of responded users of Facebook used social media to receive a product recommendation from friend or contacts. These results support the view that social media has impact on buying behavior of consumers.

Lehmann, Ruiter & Kok, (2013) investigated the impact of social media on consumer's decision-making. In this study, advertisement of influenza vaccination has been made on social media websites and Dutch news sites during February, March, and April, 2012. The study concluded that both types of media have different impact on people. Therefore, this study makes the conclusion that people responded more to the news on social media as compared to news media. Internet or social media is an important and attractive tool to influence the decision making of people and source of information.

## IV. RESEARCH METHODOLOGY & DATA COLLECTION

In this type of study, in essence, primary data answers the objectives that are stated. The primary data of this research is gained by questionnaires from social media users in Pakistan. The questionnaire is sent to colleagues, friends, family, and other persons from different localities, culture, language and provinces of Pakistan which would yield the sample size to be 1000

persons. Participation was voluntary and the questions were formulated in English.

The empirical section concentrates to find out that how people in Pakistan decipher the information on social media when they are intended to buying. By having an overall view on the buying pattern of consumers, this study is also intended to provide a different aspect about the impact of social media on different groups of age and gender in the decision making process.

SPSS package program is used for the data which is supposed to obtain by the respondents.

For the purpose of this study, quantitative data is intended to be gathered and utilized. With described strategy of survey, data is collected from a selected population. Since the span of the research concentrates on a multi-dimension; so the objective of the research methodology is to reach individual consumers who are in different age, education, locality, culture and gender groups in Pakistan.

## V. RESULTS & CONCLUSIONS

After the collected information, it is concluded the fact that 47% of consumers buy items online are really young, holding bachelor degree and get rid between 25-29 years. Consumers who buy online are usually young females as compared with males, working in the company, with more than 30,000 Pakistani rupees monthly salary and mostly have one account at least in the social network. Before buying a product on the Internet, 53% of consumers usually have information from forums, social media accounts, company websites, and peer review. Moreover, one of the reasons that most consumers prefer online transactions are convenience (47%), and the fact that the product is easily home delivery (43%).

In conclusion, we can say that social networks have a role in influencing consumer behavior in a virtual environment, especially when the degree of exposure to messages and relationship that develops between a variety of information given and the consumer who is about to make a purchase.

If we look from the perspective of the company, it should use the tool of mixed control policies to increase sales, and therefore, the net sales and market share. By improving the product details or to develop the concept of complete information of output, the company may promote the relationship between potential buyers who follow continually social networks. The pricing strategies are closely linked to the product and influence directly shopping behavior for the buyer.

As for the distribution policy, companies can send information of products digitally only, and may reduce shipping costs or conversion to physical formats. Another method used by companies can be to stock data on the cloud servers that both the company

and the buyer will have access. It also can be used to connect communications strategies through interactive games, signs that consumers leads to the website of the company or of behavioral communication (to convince the public to embrace the ideas or certain practices by publishing the relevant product information, advertising short, movies, links, etc.).

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# Impact of Salesmen Personality on Customer Perception and Sales

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**Abstract-** The objective of our study is to know the impact of the salesmen personality on customer perception and sales. The study considers various personality traits that influence the customer thinking's regarding product and increase its sales. The study was based on primary data which was collected from 172 respondents by means of a questionnaire. Random Sampling Technique was applied and Statistical tool like SPSS software was used to first check the reliability of questionnaire and then correlation analysis in order to reveal the results of the research. The results indicate that the personality traits of salespeople influence both customer perception and sales. As the customer attraction is main focus of every business, the findings and recommendation of this research will help the managers to develop a deeper insight of research factors into salesmen personality development and restructure their strategies to capture maximum potential customers.

**Keywords:** salesperson personality, personality traits, customer's relation, customer perception and sales.

**GJMBR - E Classification :** JEL Code : M30



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# Impact of Salesmen Personality on Customer Perception and Sales

Fariha Tabasum<sup>α</sup>, Muhammad Ibrahim<sup>σ</sup>, Mehboob Rabbani<sup>ρ</sup> & Muhammad Asif<sup>ω</sup>

**Abstract-** The objective of our study is to know the impact of the salesmen personality on customer perception and sales. The study considers various personality traits that influence the customer thinking's regarding product and increase its sales. The study was based on primary data which was collected from 172 respondents by means of a questionnaire. Random Sampling Technique was applied and Statistical tool like SPSS software was used to first check the reliability of questionnaire and then correlation analysis in order to reveal the results of the research. The results indicate that the personality traits of salespeople influence both customer perception and sales. As the customer attraction is main focus of every business, the findings and recommendation of this research will help the managers to develop a deeper insight of research factors into salesmen personality development and restructure their strategies to capture maximum potential customers.

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## 1. INTRODUCTION

Today is the age of technology almost everything can be sold and purchased at home via internet, but in this age of technology the direct selling has its own importance, in which the personality of salesmen has very critical role, especially in order to get market competitive advantages. Sales person is an individual who sells goods and services to other entities. The successfulness of a salesperson is usually measured by the amount of sales he or she is able to make during a given period and how good that person is in persuading individuals to make a purchase. If a salesperson is employed by a company, in some cases compensation can be decreased or increased based on the amount of goods or services sold (Martin, 3013). As there is main influence on the individual behavior, personality and as the complex set of unique psychological qualities influences an individual's behavior across situations and over the time (Morris 1996; Zimbardo and Weber 1994). Personality is a psychological construct, it has been defined "a set of responses that individuals perform in their environments" (Dion, et al. 1995; Kassarian 1971; Lamont 1977). These types form a model of personality traits by using a self-measured scale that represents personality of individual at a broadest level of the

abstraction. Each factor encompasses different other specific, which contain a large number of more specific traits (Gosling et al. 2003).

There is some personality characteristics related to the top sales personalities: *Modest* sales individuals are more proud and aggressive about their work and also more humble. It has been seen medium humble and modesty in 91% of the top sales personalities, which leads towards team orientation. The Second main attribute is *Conscientiousness*, that's salespersons take their job very seriously and feel high responsible for the outcomes. It has been seen very high conscientiousness in 85% of top sales personalities. They have a strong sense of duty, responsibility and reliability. The very conscious sales persons operate at direction of customers but as their account set by them. Third one is *achievement orientation*, in which sales persons focus deeply on achieving goals and measure continuous performance as compared to their goals. In this trait 84% salesmen are very highly achiever and their selling impact works as political orientation, because the goal orientation drives them to meet with key decision-makers.

The fourth one is *curiosity* in which the individuals have hunger for information. They ask frequent questions to gain more and more business information and want to know customer perceptions. Fifth level is *gregariousness* which means preference of being with people and friendliness. The results indicated that friendly salespeople always are too much close to their customers. The 30% top sales persons are much gregarious as compared to the sales people scoring low (Steve W, 2011).

The intentions mean to know how the salespeople's personality influences the buyer-seller relationship, how quality differs between the seller's customers and friends. While one may naturally expect there a difference, it is believed that the research will identify the some similarities and some differences between the friends and the customers. Where there are similarities, it follows that salespeople can treat good customers as friends. Where the differences exist, salespersons might want to more careful about the simple incorporation of the friendship image into their selling strategies.

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## II. RESEARCH QUESTION

The personality of sales persons always has greater impacts in such countries where people are not highly educated such as Pakistan, because the local languages are used to influence the customers. But in order to increase sales in huge volume and build customer strong relationships, the personality of sales persons is always very much important. That's the main reason to find out personality appearance and personality traits that are the causes of to build customer perception, trust, and also to increase sales. From this concern, the following question has been shaped:

1. Which type of salesmen personalities and personality traits effects on customer perception and sales?
2. Why customer relation is too much important?

## III. IMPLICATIONS

These research findings are very important for several reasons, first, in line with literature, the individual personality traits should be considered as important components in trade relationships; therefore, the managers should give more attention to the personalities of their sales force. Second, the research results also suggest that instructing salespeople to treat customers as friends may not be worthwhile. The customers may detect over familiarity and insincerity in the relationship, which might cause to withdraw from the commercial interactions. Finally, the managers, when they are guiding salespersons in their interaction with customers, it is helpful to tell them that, unlike a friendship, in the relationship of business, salespersons will have to play their most important role by contributing more and prepared for the other party to contribute less. It will happen in the environment in which the spending of in the interactions will be less enjoyable than spent the time with friends.

## IV. OBJECTIVES

The main objectives of our research are to know about the relationship among our research factors like Salesperson Personality, Personality Traits and Customer's Relation, which have very strong impact on our research topic, the Impact of salesmen personality on customer perception and sales. This research is carried out specifically with the following objectives.

1. To develop the theoretical frame work from literature reviewed
2. To find out the impact of customer relationship towards the customer perception and sales.
3. To find out the impact personality traits on the customer perception and sales.

4. To identify personality traits which improve the salesmen personalities?

## V. LITERATURE REVIEW

From the past two decades, it has been seen a reappearing of interests among practitioners and academics in the development of long-term relationship between sellers and buyers (Foster and Cadogan 2000; Grönroos1994; Parsons 2002). The relationship quality is a key subject of research. The researchers have started to investigate the different types of factors of the failure or success in relationship between the exchanges partners both seller characteristics and the quality of interactions between buyers and sellers (Crosby et al. 1990; Morgan and Hunt 1994; Parsons 2002), these determinants have not considered as jointly. The role of salespeople in service organizations, mainly long-term relational nature, has expected very limited attention.

The salespeople who are involved in relationship marketing are relationship managers. The quality of relationships between the customers and sales persons that calculates the probability of continued interchange (Crosby et al. 1990). The customer-oriented behaviors by salespersons help to create the good-quality buyer-seller relationship (Williams and Atta way 1996). Therefore, appointing the right sales person for the management of specific business relationships is very critical for the businesses.

The individual personality traits are very important factors of buyer-seller relationship (Dion et al. 1995). Since the buyer-seller relationships mostly are required frequent negotiations on price, quantity, delivery, other terms, and product specifications, this process may require cooperation among needs and conflicting interests. So, the personality of a salesperson affects in managing the relationship, thus influencing a customer's perceptions about the quality of service provided by salesperson. The literature about the personality shows that purchasing behavior is linked with individual personality traits and those results in the shape of a better and longer-term relationship (Barrick and Mount 1991; Dion et al. 1995; Lamont 1977). The first objective of the research is to investigate the quality of buyer-seller relationships from the seller's perspective and to address the question — what personality traits of a sales person influence the quality of buyer-seller relationships?

Furthermore, from a personal selling, the literature proposes the good customer relationships, in which clients and salespeople interact frequently, and they exchange information, which helps to develop close friendships (e.g., Grayson 2007; Price and Arnould 1999; Swan et al. 2001). The good and friendly relationships between sales persons and clients are frequently unquestioned phenomena, following the thoughts that “overall, frequency of interactions and

outcomes dependency, whatever the setting, promotes the friendships" (Price and Arnould, 1999). Salespersons are encouraged to treat the customers like their best friends. There are several approaches for study of personality; the most commonly employed is the trait theory (Pederson et al. 1988). According to this theory, there are many identifiable characteristics to define a person (Dion et al. 1995; Solomon 1992). The most famous examples of such traits are whether a person is an extrovert or an introvert, whether he or she initially uses thoughts or emotions in solving the problem.

The studies of trait theory to explore the salespersons' personalities have argued that a salesperson's performance can be considered as a functional trait, which means that "sales success may be a result of degree to which an individual possessed certain personality traits" (Dion et al. 1995). Accordingly to (Barrick and Mount, 1991) that different personality types may expect variations in the performance of job among different occupations. There is a classification which is widely accepted known as five-factor personality classification (Barrick and Mount 1991 and 1993; Digman 1990). This Big Five framework argues that many individual differences in human personality are classified in terms of five domains (Gosling et al. 2003; John and Srivastava 1999; McCrae et al. 1998). It has been used in theoretical frameworks, with a variety of samples and instruments (including samples from diverse cultures) with ratings, obtained from several different sources (Barrick and Mount 1993; Barrick et al. 2002; Digman 1990; McCrae and Costa 1985; Norman 1963).

The Big Five factors keep different meanings. Extraversion is known by being sociable, assertive, talkative, and active (McCrae and Costa 1985; Norman

1963). Agreeableness is can be defined as flexible, trusting, forgiving, soft-hearted, good-natured, cooperative and tolerant (Guilford and Zimmerman 1949; McCrae and Costa 1985). Conscientiousness is described by trustworthiness, as well as being careful, thorough, responsible, organized, resourceful, hardworking, achievement-oriented and persistent (Norman 1963). Openness to experience can be characterized as curious, original, broad-minded, imaginative, cultured, intelligent, and artistically sensitive (Digman 1990; Norman 1963). Emotional (in) stability (viewed from the negative pole) is known as being tense, angry, embarrassed, worried, anxious insecure, depressed, and nervous (Barrick and Mount 1991).

Salespersons' personality traits are considered as important factors in buyer-seller relationships. These findings have been based on following assumptions: 1-certain personality traits have been seen as more suited to a sales process than to others (Barrick and Mount 1991; Dion et al. 1995; Lamont and Lundstrom 1977). 2-similarities in seller/buyer personalities lead to positive outcome in sales (Barrick and Mount 1991; Crosby et al. 1990; Dion et al. 1995; Gosling et al. 2003). Our research, therefore, includes measure of Big Five personality domains, used to examine the effect of personality on the quality of salespeople's relationships with their friends and customers.

All salespeople are not successful, given the same sales tools, level of education, and propensity to work. Why do some salespersons succeed where others fail? Is one much better suited to sell the product because of one's background? Is one charming or luckier? The evidence suggested that the personalities of these truly great salespeople play a critical role in determining their success.

## VI. THEORETICAL FRAMEWORK

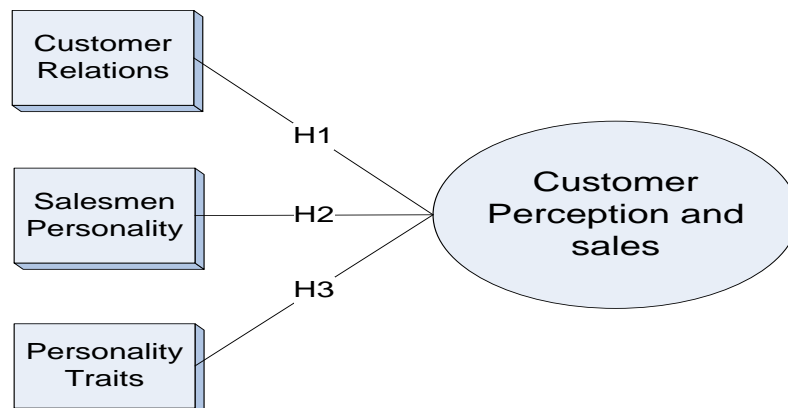


Figure 1: the conceptual model

Theoretical frame work shows the relationship between dependent and independent variables which have been used in this research. These are Customer relations, Salesmen personality and Personal traits are considered as the independent variables while the customer perception and sales work as dependent variable. This model also suggests the hypothesis formulation as well.

### Hypothesis Development

Following Hypothesis are developed from literature

**H1:** *Customer relationship has positive impact on consumer perception and sales.*

**H2:** *Salesmen personality has positive impact on consumer perception and sales.*

**H3:** *Personality traits have positive impact on consumer perception and sales.*

## VII. RESEARCH METHODOLOGY

### a) Measures

The research is based on primary data. To fulfill this need a questionnaire was developed having at least 5 questions on each variable. It was ensured to all respondents that their information would be kept confidential. In this questionnaire Likert Scale is used with choices of Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree.

### b) Sample

The samples were drawn the population of district Layyah and Dera Ghazi Khan. This research is consisting of hypotheses testing to investigate the relationships among variables like Salesperson Personality, Personality Traits, Customer's Relation, Customer Perception and Sales. An introduction session was carried out regarding to research before providing questionnaire to each respondent. The collected data was assumed to be bias free from side of respondents to avoid any deviation in findings. The questionnaire was filled by 200 respondents for both sexes and profession groups. After imputing missing values, the final sample was composed of 172 useable responses. A simple random sampling technique was used in this research in order to ensure that equal opportunity was given to all potential respondents.

### c) Validity and reliability

The questionnaire is checked for validity and reliability if it is valid then can be used for further research. In case of our research the value of cron batch alpha was 0.88 which is exceeded than thresholds. We evaluated total 30 questions of five independent and one dependent variable by using SPSS software. Hence gender wise responses received are as follow in table No.01 and Profession wise distribution in table No. 02.

Table 1: Gender wise Distribution

Gender	Frequency	Percent	Valid Percent
Male	140	81	81
Female	32	19	19
Total	172	100.00	100.00

Table 2: Profession wise Distribution

Profession	Frequency	Percent	Valid percent
University students	72	41.8	41.8
Business people	30	17.4	17.4
Private sector	30	17.4	17.4
Public sector	20	11.6	11.6
House wife	20	11.6	11.6
Total	172	100.00	100.00

## VIII. RESULTS AND ANALYSIS

### a) Analysis

A technology acceptance model was developed to assess the proposed relationship among factors like Salesperson Personality, Personality Traits, Customer's Relation, Customer Perception and Sales. For this purpose to check the relationship among above said factors we draw the correlation analysis which is shown in table 5 and details are given below.

**Table 3:** Correlation Analysis among the variables

	CR	SP	PT	CPS
Pearson Correlation	1			
Sig. (2-tailed)	.000			
Pearson Correlation	0.667(**)	1		
Sig. (2-tailed)	.000	.000	.000	
Pearson Correlation	0.410(**)	0.567(**)	0.495(**)	1
Sig. (2-tailed)	.000	.000	.000	

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

#### a) Correlation Analysis

The above given table 3 shows the correlation analysis among variables like Salesperson Personality, Personality Traits, Customer's Relation, Customer Perception and Sales. The value of significance ranges from 0.05 to 0.01. Following table also shows formulation of hypothesis.

**H1:** Customer relationship has positive impact on consumer perception and sales.

The relationship between customer relationship and customer perception and sales is positive and significant with values of (.410(\*\*),  $P=.000$ ). So there exists significant positive relationship between customer relationship and customer perception and sales. This result clearly indicates that a strong customer relationship have a positive impact on customer perception as well as sales.

**H2:** Salesmen personality has positive impact on consumer perception and sales.

The value (.567(\*\*),  $P=.000$ ) shows the positive and significant relationship between salesmen personality and consumer perception and sales. This result shows that customer perception and sales of specific product or service can be enhanced with the attractive personality of salesmen.

**H3:** Personality traits have positive impact on consumer perception and sales.

Personality traits are connected with the values of (.495(\*\*),  $P=.000$ ) with the customer perception and sales. Hence there exists significant positive relationship between them.

## IX. LIMITATIONS

Like all the researches, this study has many limitations; the first limitation may be the psychometric cost of short measures. A brief measure is the limitation of being unable to properly measure the individual aspect of multi-faceted construct (Gosling et al. 2003). There search is based on convenience sample of only 172 male and female respondents living at Layyah and Dera Ghazi Khan having different profession groups and

gender. The generalizability of results would depend on future research including age groups, income level, culture and geographic wise research.

## X. CONCLUSION

This research has described the relationships among salesperson personality traits, Salesperson Personality and Customer's Relation with Customer Perception and Sales. Managers can take lots of benefits from this correlation among these variables, which is positively significant. The personality tests may be beneficial in the selection of salespeople, in order to, if management desires to make distinctions among individuals. While, the 1less represented personality dimensions may be effective in a sales and other variables can be help full in understanding sales performance, especially this research, concentrated on Impact of salesmen personality on customer perception and sales. Moreover, the research found that the salesperson's agreeableness is the most significant and has the great effect on all other dimensions of the quality of relationship with customers. These findings suggest that managers can stress the importance of agreeableness during recruiting the salespersons. The research results also reveal that these traits do not affect the relationship quality with friends in the same way as they do relationships with customers.

## XI. FUTURE RESEARCH

For the purpose of future, this research would suggest that many personality attributes of salesmen personality are necessary. The research suggests that similar researches will find many more traits of personalities and other factors those are important for a sale person. Furthermore, the research population is only Layyah and D.G khan based. Future researchers expand the research to find other personality factors helpful for sales.

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3. Submission of Manuscripts,
4. Manuscript's Category,
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**15. Use of direct quotes:** When you do research relevant to literature, history or current affairs then use of quotes become essential but if study is relevant to science then use of quotes is not preferable.

**16. Use proper verb tense:** Use proper verb tenses in your paper. Use past tense, to present those events that happened. Use present tense to indicate events that are going on. Use future tense to indicate future happening events. Use of improper and wrong tenses will confuse the evaluator. Avoid the sentences that are incomplete.

**17. Never use online paper:** If you are getting any paper on Internet, then never use it as your research paper because it might be possible that evaluator has already seen it or maybe it is outdated version.

**18. Pick a good study spot:** To do your research studies always try to pick a spot, which is quiet. Every spot is not for studies. Spot that suits you choose it and proceed further.

**19. Know what you know:** Always try to know, what you know by making objectives. Else, you will be confused and cannot achieve your target.

**20. Use good quality grammar:** Always use a good quality grammar and use words that will throw positive impact on evaluator. Use of good quality grammar does not mean to use tough words, that for each word the evaluator has to go through dictionary. Do not start sentence with a conjunction. Do not fragment sentences. Eliminate one-word sentences. Ignore passive voice. Do not ever use a big word when a diminutive one would suffice. Verbs have to be in agreement with their subjects. Prepositions are not expressions to finish sentences with. It is incorrect to ever divide an infinitive. Avoid clichés like the disease. Also, always shun irritating alliteration. Use language that is simple and straight forward. put together a neat summary.

**21. Arrangement of information:** Each section of the main body should start with an opening sentence and there should be a changeover at the end of the section. Give only valid and powerful arguments to your topic. You may also maintain your arguments with records.

**22. Never start in last minute:** Always start at right time and give enough time to research work. Leaving everything to the last minute will degrade your paper and spoil your work.

**23. Multitasking in research is not good:** Doing several things at the same time proves bad habit in case of research activity. Research is an area, where everything has a particular time slot. Divide your research work in parts and do particular part in particular time slot.

**24. Never copy others' work:** Never copy others' work and give it your name because if evaluator has seen it anywhere you will be in trouble.

**25. Take proper rest and food:** No matter how many hours you spend for your research activity, if you are not taking care of your health then all your efforts will be in vain. For a quality research, study is must, and this can be done by taking proper rest and food.

**26. Go for seminars:** Attend seminars if the topic is relevant to your research area. Utilize all your resources.



**27. Refresh your mind after intervals:** Try to give rest to your mind by listening to soft music or by sleeping in intervals. This will also improve your memory.

**28. Make colleagues:** Always try to make colleagues. No matter how sharper or intelligent you are, if you make colleagues you can have several ideas, which will be helpful for your research.

**29. Think technically:** Always think technically. If anything happens, then search its reasons, its benefits, and demerits.

**30. Think and then print:** When you will go to print your paper, notice that tables are not be split, headings are not detached from their descriptions, and page sequence is maintained.

**31. Adding unnecessary information:** Do not add unnecessary information, like, I have used MS Excel to draw graph. Do not add irrelevant and inappropriate material. These all will create superfluous. Foreign terminology and phrases are not apropos. One should NEVER take a broad view. Analogy in script is like feathers on a snake. Not at all use a large word when a very small one would be sufficient. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Amplification is a billion times of inferior quality than sarcasm.

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**33. Report concluded results:** Use concluded results. From raw data, filter the results and then conclude your studies based on measurements and observations taken. Significant figures and appropriate number of decimal places should be used. Parenthetical remarks are prohibitive. Proofread carefully at final stage. In the end give outline to your arguments. Spot out perspectives of further study of this subject. Justify your conclusion by at the bottom of them with sufficient justifications and examples.

**34. After conclusion:** Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium through which your research is going to be in print to the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects in your research.

## INFORMAL GUIDELINES OF RESEARCH PAPER WRITING

### Key points to remember:

- Submit all work in its final form.
- Write your paper in the form, which is presented in the guidelines using the template.
- Please note the criterion for grading the final paper by peer-reviewers.

### Final Points:

A purpose of organizing a research paper is to let people to interpret your effort selectively. The journal requires the following sections, submitted in the order listed, each section to start on a new page.

The introduction will be compiled from reference matter and will reflect the design processes or outline of basis that direct you to make study. As you will carry out the process of study, the method and process section will be constructed as like that. The result segment will show related statistics in nearly sequential order and will direct the reviewers next to the similar intellectual paths throughout the data that you took to carry out your study. The discussion section will provide understanding of the data and projections as to the implication of the results. The use of good quality references all through the paper will give the effort trustworthiness by representing an alertness of prior workings.





Writing a research paper is not an easy job no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record keeping are the only means to make straightforward the progression.

### **General style:**

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear

- Adhere to recommended page limits

Mistakes to evade

- Insertion a title at the foot of a page with the subsequent text on the next page
- Separating a table/chart or figure - impound each figure/table to a single page
- Submitting a manuscript with pages out of sequence

In every sections of your document

- Use standard writing style including articles ("a", "the," etc.)
- Keep on paying attention on the research topic of the paper
- Use paragraphs to split each significant point (excluding for the abstract)
- Align the primary line of each section
- Present your points in sound order
- Use present tense to report well accepted
- Use past tense to describe specific results
- Shun familiar wording, don't address the reviewer directly, and don't use slang, slang language, or superlatives
- Shun use of extra pictures - include only those figures essential to presenting results

### **Title Page:**

Choose a revealing title. It should be short. It should not have non-standard acronyms or abbreviations. It should not exceed two printed lines. It should include the name(s) and address (es) of all authors.



## Abstract:

The summary should be two hundred words or less. It should briefly and clearly explain the key findings reported in the manuscript-- must have precise statistics. It should not have abnormal acronyms or abbreviations. It should be logical in itself. Shun citing references at this point.

An abstract is a brief distinct paragraph summary of finished work or work in development. In a minute or less a reviewer can be taught the foundation behind the study, common approach to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Yet, use comprehensive sentences and do not let go readability for briefness. You can maintain it succinct by phrasing sentences so that they provide more than lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study, with the subsequent elements in any summary. Try to maintain the initial two items to no more than one ruling each.

- Reason of the study - theory, overall issue, purpose
- Fundamental goal
- To the point depiction of the research
- Consequences, including definite statistics - if the consequences are quantitative in nature, account quantitative data; results of any numerical analysis should be reported
- Significant conclusions or questions that track from the research(es)

## Approach:

- Single section, and succinct
- As a outline of job done, it is always written in past tense
- A conceptual should situate on its own, and not submit to any other part of the paper such as a form or table
- Center on shortening results - bound background information to a verdict or two, if completely necessary
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## Introduction:

The **Introduction** should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable to comprehend and calculate the purpose of your study without having to submit to other works. The basis for the study should be offered. Give most important references but shun difficult to make a comprehensive appraisal of the topic. In the introduction, describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will have no attention in your result. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here. Following approach can create a valuable beginning:

- Explain the value (significance) of the study
- Shield the model - why did you employ this particular system or method? What is its compensation? You strength remark on its appropriateness from a abstract point of vision as well as point out sensible reasons for using it.
- Present a justification. Status your particular theory (es) or aim(s), and describe the logic that led you to choose them.
- Very for a short time explain the tentative propose and how it skilled the declared objectives.

## Approach:

- Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done.
- Sort out your thoughts; manufacture one key point with every section. If you make the four points listed above, you will need a least of four paragraphs.



- Present surroundings information only as desirable in order hold up a situation. The reviewer does not desire to read the whole thing you know about a topic.
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This part is supposed to be the easiest to carve if you have good skills. A sound written Procedures segment allows a capable scientist to replacement your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt for the least amount of information that would permit another capable scientist to spare your outcome but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section. When a technique is used that has been well described in another object, mention the specific item describing a way but draw the basic principle while stating the situation. The purpose is to text all particular resources and broad procedures, so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step by step report of the whole thing you did, nor is a methods section a set of orders.

#### **Materials:**

- Explain materials individually only if the study is so complex that it saves liberty this way.
- Embrace particular materials, and any tools or provisions that are not frequently found in laboratories.
- Do not take in frequently found.
- If use of a definite type of tools.
- Materials may be reported in a part section or else they may be recognized along with your measures.

#### **Methods:**

- Report the method (not particulars of each process that engaged the same methodology)
- Describe the method entirely
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures
- Simplify - details how procedures were completed not how they were exclusively performed on a particular day.
- If well known procedures were used, account the procedure by name, possibly with reference, and that's all.

#### **Approach:**

- It is embarrassed or not possible to use vigorous voice when documenting methods with no using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result when script up the methods most authors use third person passive voice.
- Use standard style in this and in every other part of the paper - avoid familiar lists, and use full sentences.

#### **What to keep away from**

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings - save it for the argument.
- Leave out information that is immaterial to a third party.

#### **Results:**

The principle of a results segment is to present and demonstrate your conclusion. Create this part a entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Carry on to be to the point, by means of statistics and tables, if suitable, to present consequences most efficiently. You must obviously differentiate material that would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matter should not be submitted at all except requested by the instructor.



## Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
- In manuscript, explain each of your consequences, point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation an exacting study.
- Explain results of control experiments and comprise remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or in manuscript form.

### What to stay away from

- Do not discuss or infer your outcome, report surroundings information, or try to explain anything.
- Not at all, take in raw data or intermediate calculations in a research manuscript.
- Do not present the similar data more than once.
- Manuscript should complement any figures or tables, not duplicate the identical information.
- Never confuse figures with tables - there is a difference.

### Approach

- As forever, use past tense when you submit to your results, and put the whole thing in a reasonable order.
- Put figures and tables, appropriately numbered, in order at the end of the report
- If you desire, you may place your figures and tables properly within the text of your results part.

### Figures and tables

- If you put figures and tables at the end of the details, make certain that they are visibly distinguished from any attach appendix materials, such as raw facts
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- Make a decision if each premise is supported, discarded, or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."
- Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work
- You may propose future guidelines, such as how the experiment might be personalized to accomplish a new idea.
- Give details all of your remarks as much as possible, focus on mechanisms.
- Make a decision if the tentative design sufficiently addressed the theory, and whether or not it was correctly restricted.
- Try to present substitute explanations if sensible alternatives be present.
- One research will not counter an overall question, so maintain the large picture in mind, where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

### Approach:

- When you refer to information, differentiate data generated by your own studies from available information
- Submit to work done by specific persons (including you) in past tense.
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<i>Introduction</i>	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
<i>Methods and Procedures</i>	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
<i>Result</i>	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
<i>Discussion</i>	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
<i>References</i>	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring





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