

# FACTORS AFFECTING CUSTOMERS' BUYING DECISIONS OF MOBILE PHONE: A STUDY ON KHULNA CITY, BANGLADESH

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## ABSTRACT

*Mobile phone has diverse usages to different users in accordance with their necessities. With dramatic increase in mobile phone usage in recent years, people take into account various factors while they decide purchasing a mobile phone. This study has put efforts to uncover the underlying factors those affect customers in choosing mobile phone. Data were collected from those people live in Khulna city maintaining equal ratios of various groups like male, female, businessmen, employees, students and others (mostly housewives). To select desired respondents, convenient sampling method was used. A structured questionnaire designed based on previous study with five point Likert scale was used to interview respondents. Factor analysis was applied to extract the underlying factors affect mobile phone purchasing decision. The results show that the most important factor is physical attributes. Some other factors are pricing, charging and operating facilities, size and weight, friends' and colleagues' recommendations, neighbors' recommendations and advertising.*

**Key words:** *Mobile Phone, Purchasing Decisions, Customer Choice*

## 1. INTRODUCTION

Communication is one of the most talked topics in today's business world. Among the different modes of communication, mobile phone is becoming reliable and efficient vehicle to reach from one person to another. This is the prevailing device through which we can now express ourselves, get our work done and share our joys and hurts. This picture was not seen almost two decades back when most of the people of this country were solely dependent on BTTB (Bangladesh telegraph and telephone board).

It was early nineties, the mobile phone handset first launched in Bangladesh with a very small number of penetration rate. At that time very few people were able to afford mobile phone as they faced different sorts of barriers. In 1997, Nokia started its operation in this country and presently operating a number of selling points in Bangladesh. Siemens and Samsung started their operation after launching it.

In this modern era, a wide variety of other services such as email, text messaging, MMS, internet access, audio and video, short range wireless communications (Inferred, Bluetooth), gaming etc. are also supported by the mobile phones. In addition to these, it also offers more general computing capabilities that are referred to smart phone. In Bangladesh many mobile phone brands are available e.g. Nokia, Samsung, Sony, HTC, Panasonic, Motorola, LG, Symphony, Micromax, Walton etc. and consumer choose their preferred mobile phone from this pool.

This study has been designed with intention to identify the factors affect customers to choose their mobile phone. It focuses on probable reason that the customers consider to make their purchase decision regarding mobile phone.

## **2. LITERATURE REVIEW**

There are many social and interpersonal factors that influence customers to decide about any product and so happen in mobile phone also. Consumer behavior is affected by a lots of variables, ranging from personal motivations, needs, attitudes and values, personality characteristics, socio-economic and cultural background, age, sex, professional status to social influences of various kinds exerted by family, friends, colleagues and society as a whole (Moschis, 1976).

Liu (2002) in a recent paper analyzed factors affecting the decision regarding brand in the mobile phone industry in Asia. It was found that the choice of a mobile phone is characterized by two distinct attitudes towards brands: attitudes towards the mobile phone brand and attitudes towards the network. Customers' choice of mobile phone brand is affected largely by new features more than size. This trend of choosing is definitely towards phones with better capacity and larger screens.

According to a latest report given by In-Stat/MDR (2002) research institute, color displays are now driving consumers into stores to purchase new mobile phones and related devices such as PDAs (personal digital assistants). The result that customers' choice criteria depends more importantly on color display than higher data rates or new features though the fact that the review of other studies had not cited the importance of color display. The report also indicates that the customers demand for color display handsets is increasing and it is expected that in this 21<sup>st</sup> century all cellular phones and PDAs are equipped with color display.

Dorsch, Grove and Darden (2002) in their research on customer choice of mobile phone found that from the perspective of marketing consumer's purchase process can be classified into a five step problem solving process such as: need recognition, information search, given alternatives evaluation, purchase activity and post purchase evaluation. This five step process of decision making is most appropriate for the problem solving behavior of purchase making decision or complex decision purchase process. Similarly purchase decision for mobile handset pursues the same buying process but in some cases the decision may also be influenced by symbolic preference associated with some brands.

Before purchasing mobile phone consumers take some general conditions into consideration. Considering the classical problem solving buying process behavior, it is almost always a case that consumers go for information search before taking purchase decision. There is also a common behavior that consumer's decision of purchasing is directed by previous likings for some specific alternatives. It shows that customers formulate their purchasing decision based on the limited information search activity that they performed (Moorthy, Ratchfordand, Talukdar, 1997) rather than a detailed evaluation of all possible alternatives (Chernev, 2003).

Besides information search evaluation of alternatives is an important activity that determines consumer's choice (Laroche, Kim and Matsui, 2003). They opined that customer's purchase decision is influenced by `cognitive heuristics` or in simple words a consumer choose his perceived brand based on his past experience if it fulfills his perceived values.

Swait and Adamowicz(2001) found that a lot of decision behavior exercised by purchasers can be different from one individual to another because customers may use different approaches to make their choices rather only using mathematical modeling.

A prospective buyer's decision of buying a product or brand may be influenced by personal preferences and perspective of buying may have a greater effect on brand choice if the customer

has little subsequent knowledge or experience about the product. The conventional problem solving technique that is used in making purchasing decision that affects buyers' preference might not be the best approach in all conditions. Mobile phone selection can either be based on functional/primary/rational factors or it can be based on emotional factors such as: fun, pleasure, excitement etc. (Batra and Ahtola, 1990).

A lot of consumer's choice may be having both rational features (e.g communication, time management) as well as emotional features (e.g games, music, camera, and application). The younger the consumer the more he would prefer emotional rather than rational features in mobile phones (Wilska, 2003). Customers' decisions of purchasing mobile phone depend on rational as well as emotional factors.

Requelme (2001) conducted an experiment to identify the quantity of self-knowledge consumers have when choosing between mobile phone brands. The study was built upon six key attributes (telephone features, access cost, connection fee, mobile to mobile phone rates, call rates and free calls) related to mobile phone purchasing respondents had to importance rate.

### 3. METHODOLOGY

This study was conducted to know the factors affect people decisions of mobile phone purchasing. Primary and secondary data were collected from appropriate sources for collecting data. A structured questionnaire with five point likert scale was used to collect the opinions of respondents. To select the respondents, convenience sampling method was used. A total of 200 respondents were interviewed from them 160 were found flawless thus used for data analysis. Factor analysis and descriptive statistical tools were applied with SPSS for data analysis.

### 4. ANALYSIS AND FINDING

The data presented in the above table indicate that the sample is equal with both male and female respondents as they are indicated by 50 percent for both. Age analysis of respondents indicates that most of the respondents fall in the age group of 19-25 years as it was indicated by 21.2 percent respondents in the sample. Occupation shows that in case of service and students the respondents are 45 that indicate 28.1 percent for both and Business and Housewives include 35 respondents each that indicate 21.9 percent. In case of income level the most respondents fall under the income level of above 20000 that shows 30.6 percent.

Table 1: Demographic characteristic of respondents

	<b>Categories</b>	<b>Count</b>	<b>Percentage</b>
<b>Gender</b>	Male	80	50
	Female	80	50
<b>Age group</b>	Below 18	14	8.8
	19-25	34	21.2
	26-30	31	19.4
	31-35	29	18.1
	36-40	22	13.8
	Above 40	30	18.8
<b>Occupation</b>	Service	45	28.1
	Students	45	28.1
	Business	35	21.9
	Housewives/Others	35	21.9

<b>Income Level</b>	Below 5000	40	25.0
	6000 to 10000	26	26.2
	11000 to 15000	23	14.4
	16000 to 20000	22	13.8
	Above 20000	49	30.6

## 5. FACTOR ANALYSIS

Table 2 - KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.877
Bartlett's Test of Sphericity	Approx. Chi-Square	2.875
	df	496
	Sig.	.000

The result obtained from 160 respondents had been thoroughly analyzed and the outputs of the results had been clearly explained in this section. To analyze the strength of association among variables the Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy was applied. The KMO measure of sampling adequacy was computed to determine the suitability of using factor analysis. It certifies whether data are suitable to perform factor analysis. The value of KMO varies from 0 to 1 and high values (close to 1.0) generally indicate that a factor analysis may be useful with the data. KMO score should be 0.60 to be adequate for testing. KMO score .877 indicates adequacy for testing.

Table 3 -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	9.917	30.992	30.992	9.917	30.992	30.992	7.515	23.483	23.483
2	3.356	10.487	41.479	3.356	10.487	41.479	4.650	14.530	38.013
3	2.120	6.624	48.103	2.120	6.624	48.103	2.133	6.665	44.679
4	1.890	5.906	54.009	1.890	5.906	54.009	2.124	6.636	51.315
5	1.409	4.403	58.412	1.409	4.403	58.412	1.654	5.167	56.482
6	1.284	4.014	62.426	1.284	4.014	62.426	1.624	5.076	61.558
7	1.103	3.448	65.874	1.103	3.448	65.874	1.381	4.315	65.874

Extraction method: Principal component analysis

Applying SPSS, the principal component analysis (PCA) was carried out to explore the underlying factors associated with 32 items. The above table shows that 65.87% of variation in mobile purchasing by the customers is explained by seven factors.

	Component						
	1	2	3	4	5	6	7
Camera and video	.827						
Bluetooth	.802						
Multimedia option	.800						
Touch Screen	.775						
Memory capacity	.772						
Color display	.763						
Attractive color	.753						
Model/style	.684						
New features	.684						
Design of the phone	.669						
Appearance	.608						
Web browser	.597						
Brand value/quality	.504						
Model at reduced price		.815					
Product price		.771					
Special offers		.723					
Reliability		.715					
Dual SIM option		.702					
Family members' opinion		.597					
Domestic product		.588					
Charging hour			.751				
Complexity of operating			.602				
Battery			.459				
Key pad (Bengali or English)			.455				
Small size				.872			
Weight				.861			
Friends' recommendation					.799		
Colleagues' recommendation					.536		
Neighbor recommendation						.729	
Salespersons' recommendation						.496	
FM facilities						.407	
Advertising							.763

The above table indicates the number of factors those affect customers to choose mobile phone brands. From the rotation method the following seven factors (table 5) may be obtained.

Table 5- Naming of Factors

Factor no.	Name of dimension	Item no	variables	Factor loading
<b>F1</b>	<b>Physical attributes</b>	1	Camera and video	.827
		2	Bluetooth	.802
		3	Multimedia option	.800
		4	Touch screen	.775
		5	Memory capacity	.772
		6	Color display	.763
		7	Attractive color	.753
		8	Model/style	.684
		9	New features	.684
		10	Design of the phone	.669
		11	Appearance	.608
		12	Web browser	.597
		13	Brand value/quality	.504
<b>F2</b>	<b>Pricing</b>	14	Model at reduced price	.815
		15	Product price	.771
		16	Special offers	.723
		17	Reliability	.715
		18	Dual SIM option	.702
		19	Family members' opinion	.597
		20	Domestic product	.588
<b>F3</b>	<b>Charging and Operating facilities</b>	21	Charging hour	.751
		22	Complexity of operating	.602
		23	Battery	.459
		24	Key pad (Bengali or English)	.455
<b>F4</b>	<b>Size and weight</b>	25	Small size	.872
		26	Weight	.861
<b>F5</b>	<b>Friends' and colleagues' recommendations</b>	27	Friends' recommendation	.799
		28	Colleagues' recommendation	.536
<b>F6</b>	<b>Neighbors' recommendations</b>	29	Neighbor recommendation	.729
		30	Salesperson's recommendation	.496
		31	FM facilities	.407
<b>F7</b>	<b>Advertising</b>	32	Advertising	.763

## 6. LIST OF FACTORS: Identified factors are listed below.

**6.1 Physical attributes:** It is the most important factor. It can explain 30.99 percent of total variance in customer decisions of mobile purchasing. Physical attributes include all the physical characteristics of mobile phone like camera, Bluetooth, color, weight and others.

**6.2 Pricing:** It is the second factor which is capable to explain 10.49 percent of total variance. This second factor of pricing includes all the price related factors that the customers consider before buying

mobile phones. It states that the Bangladeshi customers' psychology that influences buyer's decisions of purchasing mobile phone.

**6.3 Charging and operating facilities:** This is the third most important factor. It can explain 6.62 percent of total variance. Charging and operating facilities are taken into account while customers purchase mobile phones.

**6.4 Size and weight:** It is the fourth factor that explains 5.91 percent of total variance. There are many respondents who generally take the size and weight as important issues in buying mobile phone.

**6.5 Friends' and colleagues' recommendations:** This is the fifth factor which explains 4.40 percent of total variance. Some respondents take the suggestions from their friends and colleagues before purchasing mobile phones.

**6.6 Neighbors' recommendations:** It is the sixth factor which capable to explain 4.01 percent of total variance in customer decisions of mobile purchasing.

**6.7 Advertising:** The seventh factor explains 3.475 percent of total variance. It shows that customers also make their purchasing decision based on advertisement aired in various media.

## 7. CONCLUSION

The objective of the research was to find out the underlying factors those have a role to determine the brands while customers purchase mobile phone. It has been seen from the previous discussion that there are lots of variables customers consider before choosing brand of mobile phones. Some of the factors influence customers' decision greatly while others have comparatively low impact on the purchase decision. At the time of survey, it was observed that various types of facilities are expected by the customers. But this research work does not deal with the customer expectation. Rather it has tried to focus on the issues that the customers judge in the existing market scenario.

The research has identified that many factors are deemed as selection criteria of mobile phone. Not necessarily all the variables influence a person in the same way and same extent. In case of choosing mobile phone brands, mostly considered factors by customers include physical attributes, pricing, charging and operating facilities, size and weight, friends' and colleagues' recommendations, neighbors' recommendations and advertising.

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