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CHOICE OF THE PROFESSIONAL STUDENTS ON PURCHASING MOBILE HANDSETS: A STUDY ON INFLUENCING FACTORS

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ABSTRACT

India smart-phone manufacturing industry has surged to \$44 billion, marking a significant milestone. The country's smart-phone exports have reached a record high of \$11 billion. A mere decade ago, imports dominated the market with 98% of mobile phones being brought in from abroad. Now an impressive 99.2% of mobile phones used in India are domestically produced, showcasing a remarkable shift towards local manufacturing. The government aims to reach a milestone of USD 300 billion in electronics manufacturing by 2025-26, with exports accounting for USD 120 billion of that figure. Mobile phones are projected to play a significant role, contributing over USD 50 billion to exports by 2025-26. Against this backdrop the present study is conducted to understand how customers place these companies in their mind. This study tries to judge the perception of respondents by taking into account top end features, basic features, brand image, economy, additional features, and versatility physical characteristics prided by handset sellers with the help of factor analysis. The study suggests that the handset sellers should be considering the above-mentioned factors to capitalize the opportunity.

KEYWORDS: Mobile handsets, Professional students, Influencing factors, purchase.

INTRODUCTION

India will emerge as a leading player in the virtual world by having 700 million internet users out of the 4.7 billion global users by 2025, as per a Microsoft report. The Internet economy is expected to touch Rs 10 trillion (US\$ 155 billion) by 2018, contributing around 5 percent to the country's GDP. With the government's favorable regulation policies and 4G services hitting the market, the Indian Telecom Sector is expected to witness fast growth in the next few years. The Government of India also plans to auction the 5G spectrum in bands like 3,300 MHz and 3,400 MHz to promote initiatives like the Internet of Things (IoT), machine-to-machine communications, instant high-definition video

transfer as well as its Smart Cities initiative. The Indian mobile phone industry expects that the Government of India's boost to the production of battery chargers will result in the setting up of 365 factories, thereby generating 800,000 jobs by 2025 as per the Indian Cellular Association, according to a report by Canaly.

REVIEW OF LITERATURE

Pakola et al. (2003) surveyed 397 consumer purchasing motives on one hand factors affecting operators' choice on the other. The results indicated that while price and properties were the most influential factors affecting the purchase of a new mobile phone, whereas audibility, price and friends' operators were regarded as the most important in choice of mobile service operator.

Gupta (2007) concluded that Indian mobile user is willing to spend Rs.6, 900 on an average for the next handset. The average price paid for the current handset by an Indian mobile user is Rs.3, 700. The 'incremental spend' for the next hand has grown to Rs.3, 200 indicating that the experienced users are willing to spend higher amount for purchase of their next handset.

Liu (2002) examined factors affecting the brand decision in the mobile phone industry in Asia. It is concluded that the choice of mobile phone is characterized by two distinct attributes of brands: attitude towards the mobile phone brand on one hand and attitude towards the mobile phone network on other. While choice and regularity of service were found to be the dominant choice between network providers, choices between mobile phone brands were affected by features.

Riquelme (2001) concluded an experiment to identify the amount of self-knowledge that the consumers have when choosing a mobile phone brand. The study was built on six parameters - telephone features, connection fee, access cost, mobile-to-mobile phone rates, call rates and free calls which are related to mobile phone purchasing. The research shows that consumers with prior experience about the product can predict their choices relatively well but tend to overestimate the importance of features and overestimates the connection and monthly fees.

Karountzos, et al. (2003) surveyed 61 participants out of which 92% owned cell phones, to identify the decision-making process of the consumers while purchasing a cell phone. Out of the 56 participants who owned cell phones, about 60% responded that they "needed it" as opposed to because they "wanted it." Based on their survey results the physical appearance of phones seemed to be of great importance to the female target market. Males on the other hand simply care about the actual function of the phone. The survey indicated that specifically color and weight is much more important to females than to males. Karjaluoto, et al. (2005) surveyed 66 participants in Finland about their buying behavior. Close to half of the respondents reported acquiring a new mobile phone every year

and sometimes the changing cycle is even faster. The most explicit reason for changing was that the old one was broken or did not work properly. This meant for the participants that the mobile phone did not work, the calls were interrupted, for example due to weak audibility, battery was weak, the screen was out of order or keypad was so consumed that the numbers were invisible. While mobile phones were also acquired due to new features including color display and polyphonic ring tones, some respondents bought new phones in order to get an innovator and/or opinion leader status. Fundamentally, respondents agreed that price, brand, and size of the phone were the main factors affecting their choice of the new model.

The selection of telecommunication service provider is the key design for the mobile Telephone user because it influences the costs as well as benefits of using this service. Shayed (2008), in this study, suggests that the target markets are influenced by promotional activities when consumer buy a mobile connection. But target markets are not basically concerned about celebrities engaged in advertising. They give less importance to promotional activities other than marketing mix such as products, distribution, price, process etc. the consumers seriously consider the tariff & focus more on the tariff than any other factors. According to this study, among respondent's public service holders are the most sensitive towards the tariff price. Students and housewives value the celebrities for purchasing the mobile connection. Students and private service holders are concerned and value the brand image when purchasing the mobile connection. In case of word of mouth, students, housewives, private service holders consider it when purchasing the mobile connection. Public service holders, students and housewives are highly influenced by any discount, fee sampling, etc. for purchasing the mobile connection.

Haque & Rahman (2010), in their study "Exploring influencing factors for the selection of mobile phone service providers" say that consumers' buying behavior for mobile phone Service provider is widely varied in accordance with the service quality, price, availability of product, and promotion, etc. the research was conducted in Malaysia. Historically, the competition among the mobile phone service providers in Malaysia has been very intense. Hence the service provider companies are characterized by the engagement in competition with each other to attract and acquire the potential consumers. They compete not only for networking quality by a large amount of investment in network quality, network extension and upgrading, but also for the acquisition of new customers and retention of old customers by direct and indirect price reduction. Network quality is one of the important factor of overall service quality. According to their study, product, quality, availability, and promotion are also significantly important factors influencing the consumers' buying behavior in Malaysia's vest mobile phone market. Olatokun and Nwonne (2012) studied the factors influencing the choice of the mobile service provider in the Nigerian telecommunications market. They studied the impact of several factors on the user's choice process. In their study they covered

the factors like service quality, call rate, service availability, promotion and brand image. The results show that call rate remains the most significant factor considered in user's perception when selecting a service provider while when brand image is the least preferred. Call rate charged by the telecom operators can significantly influence the mobile phone users to make buying decision. Amongst the indicators measured in this study, Brand image was observed not to be significant in influencing users' choice of a mobile operator. Although brand image did not significantly improve users' choice process, their study observed that the mobile operators with the largest subscribers are those with popular brand. Brand may not be significant factor in influencing a users' choice but it affects the buying behavior of the users of a mobile operator.

Further with introduction of mobile number portability in several countries the customers are also actively engaging in switching from one service provider to the other. Saeed, Hussain and Riaz (2011), studied the factors effecting consumers' switching intentions in telecom industry. The results suggest that the factors which affect the switching intentions include tariff rates, perceived commitment, outcome quality and anger incident. The main focus of their research study was price/tariff rates which showed relatively strong influence in determining consumers' switching intentions for cellular service providers in the telecom industry. Their study validated and confirmed the significant role of fair prices, prompt customer service, commitment with customers and anger free services in order to control switching intentions in telecom industry. However, this study mainly focused on investigating the factors that cause individuals to change their cellular connections.

After in-depth review of previous work, the present research was conducted to find out the influence of factor on purchase of mobile telecommunication services by the professional student consumers in the Berhampur town, Odisha.

Need of the Study

The review of the literature reveals that mobile purchase is a high involvement decision which comprises of both external and internal factors. Therefore, it is necessary for the marketers to keep in mind the various factors which undergoes while the purchase of a mobile phone so that they can place the phone accordingly, for the right segment, in the right place with right price and finally with the right branding.

Objective of the Study

This study is being carried out to identify the factors that influence on the purchasing decision of the mobile phone among the professional students in Berhampur Town, Odisha. A statistical approach, 'factor analysis' has been used for the study.

Methodology of the Study

The study is based on the primary data collected from the students of various disciplines of Berhampur Town, Odisha with the help of well crafted, pre tested and structured questionnaire. The sample of the study consisted of 150 students who have mobile phone from different financial institutions and colleges of Berhampur Town, Odisha. The demographics of the respondents were as follows:

Table 1: Demographic Features of Respondents

Respondents	Sample Size
MBA	50
Chartered Accountants	25
Law (LLB)	25
BCA	25
MBBS	25
Total	150

The respondents being the adopters of mobile phone were selected by non-probabilistic and convenience sampling technique (who ever seen using/have possession of mobile phone). The questions inquiring the choice of a mobile phone user and the operator were implemented with 21 statements, respondents had to rate it according to the level of importance on five-point Likert Scales. This is exploratory research which will help us in determining the purchasing behavior of professional students for mobile phones. SPSS has been used for the analysis of data.

Data Analysis

The Data collected through the questionnaires was coded using SPSS. Factor analysis is used to identify the factors affecting the choice of mobile handset.

Factor Analysis

The explanatory factor analysis is used in order to identify the factor affecting the choice of mobile handsets with special reference to professional students from 150 respondents in Berhampur Town, Odisha. To test the suitability of the data for factor analysis, the following steps have been taken:

- The correlations matrices are computed and examined. It reveals that there are enough correlations to go ahead with factor analysis.
- Anti-image correlations were computed. These showed that partial correlations were low, indicating that true factors existed in the data.
- Kaiser-Meyer-Olkin measure of sampling adequacy (MSA) for individual variables are studied from the diagonal of partial correlation matrix .it is found to be sufficiently high for all variables. The measure can be interpreted with the following guidelines: 0.90 or above, marvelous; 0.80 or above, meritorious; 0.70 or above, middling; 0.60 or above, mediocre; 0.50 or above miserable, &

below 0.50, unacceptable.

- To test the sampling adequacy, Kaiser-Meyer-Olkin measure of sampling adequacy is computed, which is found to be 0.668. It is indicated that the sample is good enough for sampling
- The overall significance of correlation matrix is tested with Bartlett test of sphericity for choice of mobile phone (approx. chi square = 1861.92 significant at 0.000) as well as support for the validity of the factor analysis of the data set.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.668
Bartlett's Test of Sphericity	Approx. Chi-Square	1861.924
	df	210
	Sig.	.000

Hence all these standards indicate that the data is suitable for factor analysis. For extracting factors, we have employed principal components analysis and latent root criterion. Rotation methods, orthogonal rotation with Varimax were also applied. As per the latent root criterion, only the factors having latent roots or Eigen values greater than 1 are considered significant; and all the factors with latent roots less than 1 are considered insignificant & disregarded.

Factor Influencing Mobile Handset Purchase

There are only seven factors each having eigen values exceeding one for mobile handset purchase. The index for the present solution accounts for 70.059% of the total variations for the purchase of the handsets. It is pretty good extraction because we are able to economize the number of choice factors, (i.e. from 21 statements to 7 underlying factor). The percentage of variation explained by factor one is 15.198% & that of 2, 3, 4,5, 6 and 7 are 14.718%, 11.118%, 7.753%, 7.397%, 6.984% and 6.890% respectively.

Table 3: Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.851	23.101	23.101	4.851	23.101	23.101	3.192	15.198	15.198
2	2.456	11.698	34.799	2.456	11.698	34.799	3.091	14.718	29.916
3	2.053	9.778	44.577	2.053	9.778	44.577	2.335	11.118	41.034
4	1.650	7.859	52.435	1.650	7.859	52.435	1.628	7.753	48.788
5	1.394	6.636	59.072	1.394	6.636	59.072	1.553	7.397	56.185
6	1.240	5.906	64.978	1.240	5.906	64.978	1.467	6.984	63.169
7	1.067	5.081	70.059	1.067	5.081	70.059	1.447	6.890	70.059
8	.970	4.618	74.677						
9	.840	3.998	78.676						
10	.739	3.521	82.197						
11	.606	2.887	85.084						
12	.562	2.677	87.760						
13	.457	2.174	89.934						
14	.392	1.866	91.800						
15	.342	1.630	93.430						
16	.322	1.534	94.964						
17	.270	1.288	96.251						
18	.250	1.193	97.444						
19	.203	.966	98.410						
20	.182	.867	99.277						
21	.152	.723	100.000						

Note: Extraction Method: Principal Component Analysis

Table 4: Communalities

	Initial	Extraction
Size	1.000	.720
Brand	1.000	.531
Popularity	1.000	.769
Design/Style	1.000	.677
Color	1.000	.814
Price	1.000	.694
Weight	1.000	.840
Features	1.000	.578
Quality	1.000	.625
Service	1.000	.814
Accessories	1.000	.744
Plan	1.000	.657
Reception	1.000	.670
Bluetooth	1.000	.688
Calendar	1.000	.613
Camera	1.000	.747
Media Player	1.000	.691
Video Capture	1.000	.800
Speaker Phone	1.000	.756
FM	1.000	.752
Touch Screen	1.000	.531

Large communalities in Table 4 indicate that a large number of variances has been accounted by the factor solution. They are bigger than 0.5 for all the questions. This is the indicator of suitability of the questions.

Table 6 has been formulated from SPSS data output. The variables are extracted from the graph with factor loading greater than 0.4. The professional students considered top end features as the first dominating factor. In this factor the role of manufacturer played a significant role in influencing choice

of mobile phone. The professional students preferred the mobile phones that were having features like Bluetooth, camera, Media player video capturing and Touch screen. The second significant factor was the basic features provided by the manufacturers. It indicated the professional students judged the credibility of handsets on the basis of basic features provided by the Mobile manufacturers. Brand Image is the third factor. It indicated that the awareness of professional students to cope up with new technologies and features. The brand image of the company helped them in choosing a particular mobile phone.

The fourth factor is the Economy indicated that respondents want good value for the money they invested in the purchase of mobile handsets. The fifth factor is the additional features like speaker, FM and Calendar, which also provide value for money is also been considered as important one by the respondents. Versatility in the form of color also gets due weight age by today's professional students. The last factor, physical characteristics of the mobile handsets plays a vital role in influencing the purchase of mobile handsets.

Table 6: Rotated Component Matrix (a)

	Component						
	1	2	3	4	5	6	7
Size	.138	.159	.076	-.090	.023	.015	-.853
Brand	.131	.054	.598	.303	.168	-.081	.164
Popularity	.148	.004	.616	-.165	-.311	.487	.079
Design/Style	.211	.136	.685	-.309	.217	.045	.029
Color	.130	.030	-.029	.040	.037	.890	.018
Price	.050	.050	.047	.809	.061	.023	.169
Weight	-.011	.081	.113	.240	-.024	.092	.868
Features	.205	.281	.327	-.188	.332	-.114	.438
Quality	.009	.647	.345	.006	.051	.045	.288
Service	.060	.872	.038	-.087	-.129	.096	.123
Accessories	.255	.466	-.195	-.487	.078	.421	.051
Plan	.100	.737	-.110	.285	-.036	-.050	-.076
Reception	.406	.684	.120	-.132	.066	.026	.008
Bluetooth	.703	.147	-.076	-.123	-.136	.031	.363
Calendar	-.052	.373	.219	-.122	.467	.361	.247

Camera	.812	.232	.069	.042	.110	.012	-.124
Media Player	.719	.219	-.069	.060	.198	.254	.120
Video	.824	.152	.184	.082	-.191	-.039	-.141
Speaker	-.129	.019	-.250	.298	.753	-.075	.019
FM	.076	.397	.341	.423	.452	.040	-.296
Touch Screen	.641	-.239	.138	-.058	-.172	.105	.032

Table 7: Factors

<u>Factor Numbers</u>	<u>Name of Dimension</u>	<u>Factors</u>	<u>Factor Loading</u>
F1	Top End Features	Bluetooth Camera Media Player Video Capture Touch Screen	0.703 0.812 0.719 0.824 0.641
F2	Basic Features	Quality Service Plan Reception	0.647 0.872 0.737 0.684
F3	Brand Image	Brand Popularity Design/Style	0.598 0.616 0.685
F4	Economy	Price Accessories	0.809 -0.487
F5	Additional Features	FM Speaker Calendar	0.452 0.753 0.467
F6	Versatility	Color	0.890
F7	Physical Characteristics	Weight Size Features	0.868 -0.853 0.438

CONCLUSION

The conclusion of the study shows that there are seven major factors which influence the mobile purchase decision of the professional students of the Berhampur Town, Odisha. These factors are Top end Features, Basic Features, Brand Image, Economy, Additional Features, Versatility and Physical Characteristics. These seven factors include all the factors that were aimed to study the mobile purchase decision. The present study is based on sample of 150 professional students from the total population in the Berhampur Town of Odisha and has shown the relationship between the factors and the buying decision of the customer through factor analysis. The study suggests that the marketer should be considering the above-mentioned factors to equate the opportunity. The study may show some deviation due to complexity in consumer taste & preferences in different other areas.

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