Factors that Affect Consumers' Tendency to buy Locally Assembled Mobile Phone

Mitku Assefa Argaw[1], Dr. Hamed M. S. Ahmed[2]

[1]*Lecturer, Department of Management, Wollo University, Ethiopia*
[2]*Assistant Professor, Management Department, Wollo University, Ethiopia*

ABSTRACT

Since the wireless communication service introduced in Ethiopia, a dramatic growing of a cellular phone communication device market is a one which attract firms to import and assembled such devices for local market. These imported and locally assembled handsets are computing for the same market using defined strategies and business objectives. The intent of this study was that to assess consumers' tendency related to locally assembled mobile phone handset. The main aim of this study was knowledge contribution for local assembler related to their customer behavior and generation of reliable data for further study also an important focus. Descriptive quantitative research method was utilized therefore it would be convenient to imply decision characteristics, demographic association with preference and brand preference related to this study. Close –ended 5 point Likert scale questioner was used to gather primary data from 385 respondents. Secondary data collected from books, journals, magazine, websites and others relevant sources. The entire respondent should have their own mobile phone. Non probabilistic convenience sampling was implemented to select the respondents. Collected data was analyzed using descriptive and inferential statistical tools including logistic regression and chi-square test to understand the association between demographic variables with preference of mobile phone between local and international brand to understand situation and draw conclusion and recommendation of the findings. From the analysis, product price was identified as dominant factor followed by product quality. Price also had significant effect on mobile preference between local and foreign brands. TECNO mobile was identified dominant brand using by consumers. These studies suggest that local assemblers should consider these and additional factors to understand the true picture of their market environment. All the above mentioned quantitative data were computed using the Statistical Package for Social Science (SPSS-20).

Key words: locally assembled mobile handset, consumers' behavior, demography, decision factors.

Introduction

Buyer behavior is a study of how individuals make decision to spend their available resources (time, money and effort) on consumption related items (what they buy, why they buy, When they buy, Where they buy, How often they buy and use a product or service).(RAJASELVI, ND)According to (Wanke, 2009) as stated by (Egziabher, 2015) each day we make decisions concerning products or services, and many interactions occur in a consumer framework, which is the origin for influencing one another (Dittmar, 1996). Similarly, goods with unique features and luxury products are used for self-expression as well as for the positive perception of others. Correspondingly, some of the old-fashioned ideas of people purchasing for economic value, or that consuming is mostly about acquiring needed products and services seems to be fading with time . Furthermore, explained that we negotiate our sense of identity, well-being and relationships with others in part through our purchases of material goods (Egziabher, 2015).

The consumer electronics industry has witnessed a unique growth over the past few years. This growth can be attributed to the increasing effect of state of the art electronic devices on the market. The consumer electronics industry is ushering in the dawn of Convergence. It is the confluence and merging of hitherto separated markets of digital based audio, video and information technology, removing entry barriers across the market and industry boundaries. This convergence of technologies has resulted in a greater demand for consumer devices, be they portable, in-home (mobile phones, digital camera) or in-car (DVD players), offering multiple functions. (Dr. Abdul Baji and N. D Chandra Sekhar, N.D).

Now a day's mobile phones become a basic element of individual communication across the globe in the past ten years,

consumer research has dedicated little precise concentration to motives and choice underlying the mobile phone buying decision process (Hashim Zameer, Rashid Saeed & Raheel Abass, 2012). Style of mobile phone and brand image of mobile phone is most important factor for rural consumers while making purchase decision price is at fifth means that urban consumer not consider price as a criteria for mobile phone selection. Price has low impact on buying behavior of urban consumers. On the other hand, for rural consumers' functionality of mobile phone and Price of mobile phone are most important factors. Means those rural consumers are price conscious. Style of mobile phone and brand image of mobile phone have low impact on consumer buying behavior regarding mobile phone (Hashim Zameer, Rashid Saeed & Raheel Abass, 2012).

According to the research conducted by (Hashim Zameer, Rashid Saeed & Raheel Abass, 2012), indicate that rural consumers more focus on the functions of mobile phone and they are price conscious on the other hand urban consumers more focus on style of mobile phone and brand image of mobile phone. This paper serves as a valuable guideline for management to review their advertisement campaigns and modify their mobiles according to the needs of consumers. According to the research conducted by (Soomro, 2013), large number of respondents prefer the purchase the mobile phone handset with value added facilities like camera, large screen, familiar brand and low price. The respondents also focused those service provider companies that offer the services such as SIM at low rate, free minutes, low call rates and call clarity.

According to Mesay (2013) consumers in Hawassa city consumers are prefer the most known international brand and also need to switch to other international brand. But all these empirical studies have a gap to show knowledge of consumers' buying decision related to locally assemble mobile handsets especially in Ethiopia. An additional challenge for mobile assemblers in developing nation is that consumers prefer brands from developed world. If the challenges continuing in this way, not only the firms income in question but the firms' contribution for national economy mainly job creation for employee, markets for local software developer and row material supplier are highly affected. Therefore this study was trying to identify effect and association of identified decision and demographic variables related to locally assemble mobile handset based on the study objectives to help marketing decision of all stock holders in this industry to reconsider their strategic direction to become strong enough for competitive pressure against local and international brands.

Although mobile phones have become a fundamental part of personal communication across the globe during the past ten years, consumer research has devoted little specific attention to motives and choice underlying the mobile phone buying decision process. There are numerous complex factors that need to be taken into account when exploring mobile phone buying decision process, including both macro and microeconomic conditions that affect the evolution of mobile phone market in general and individual consumer's motives and decision making in particular. Moreover, it is important to distinguish between buying behavior referring to the choice between different mobile phone models and brands and change aspects referring to reasons that affect change.

1.1. General objective
The general objective of this study was assessing consumers' tendency related to locally assemble mobile handset.

1.2. Specific Objectives
The Specific objectives of this study were:-
- To assess the dominant factors preferred for decision making to buy locally assembled mobile phones.
- To assess the effect of decision factors on consumers' preference between local and foreign brand

1.3. Research questions
- What are the main factors preferred for decision making to buy locally assembled mobile phones?
- What is the effect of decision factors on consumers' preference between local and foreign brand?

1.4. Scope of the study

The study would be conducted in Dessie and kombolcha province located in north east Ethiopia south Wollo zone of Amhara region. This study was considering product price, product quality, after sale service and product feature as a decision factors and gender, age, residence, education level, occupation and income as demographic variables to examine this study objective.

Literature Review

Product characteristics

Branding

Different empirical studies elicit brand preferences in different aspect. According to Hajra et al (2015), cellular phone consumers in Pakistan had shown preference of international brand over local one. According to Zeenatet al (2012) young people living in Karachi, Pakistan prefer international brand over local one with in the same price and quality level. Other studies conducted by Cynthiaet al(2013) also suggest Ghanaian consumers prefer international brand of mobile phone over local products. Additional study performed by Hossain and Nahid (2013) suggest that young mobile consumers in Iran prefer international brand due to quality mater.

Price

Price has a negative relation with consumers need. Whenever the price is rising, need or demand is decreasing against. There for pricing have a role on consumer decision behavior. Owusu (2013) prove that consumer show a reluctant position to buy high price mobile phone in Kumasi Metropolitan in Ghana.

Quality

According to Mohamedet al(2013); Raymond (2013 and Hashimet al(2012) witnessed that quality is the major factor for consumer decision behavior. Some other researcher like Edwin et al(2013) evaluated that quality has no significant impact on consumers' decision behavior.

After sale service

After sale services involved post purchase relationship between consumers and company once consumer have deliverables. Different literatures were proof that after sale services is a direct impact on consumers' decision buying behavior in different region (Ladokunet al, 2013; Mesay, 2013 and Ali et al, 2011).

Product feature

Product feature is one of the physical characteristic used to measure product quality. It includes different types of variables i.e. size, shape, weight, color, speed, language, connectivity, memory etc. these listed and other product features ad characteristic are evidenced that affect consumer decision behavior (Mohanedet al, 2013; Mohamed et al, 2013; Mesay, 2013 and Raymond K. D. 2013).

Research Methods

Research design

For this study, descriptive research method, the purpose of employing this method was to describe the nature of a situation as it exists at the time of the study to analyze specific objective which were to assess factors that affect consumers buying decision.

Study population

According to national population and housing census report (2007), total populations of these two towns are 151,174 and 85,367 for Dessie and Kombolcha respectively. The economic income of peoples classifies mostly in civil servant, privet business and agrarian.

Sampling technique and sample size

1. Sample size

The study populations was 164,335 who had 15 and above years of age and then the study sample size become 385

respondents where level of confidence is 95% at population standard deviation and margin of error are 50% & 5% respectively. proportionate stratification technique was usingbased on provincesto calculate sample size for each stratum. To select each respondent from each province and residential areas, non-probabilistic convenience sampling technique was implemented because it is useful where sampling frame of respondent not available(Beri,2008).

2. Sample size determination

According to Cochrans' study (as cited in Mesay, 2013) sample size (n_0) determination formula when population > 50,000 is:

$n_0 = [z/c]^2 (p)(1-P)$

3.Data collection tool

A structured closed ended 5 point Likert scale questionnaire was used to collect primary data directly from the respondent. The form also had some points such as purpose of the research, what was expected from the respondent, all required information related to research objectives were included and also all parameters systematically categorized and coded.

.4. Content validity

The contain validity test was conducted through the process of consultation by advisory and co-advisory comments after the questionnaire developed by the researcher to maximize wording, scaling and language usage quality (Rama, 2007). It was conducted accordingly and validity of instrument was insured by the experts.

5. Reliability test

Based on the sample size calculation for reliability test twenty samples were tested to make sure that the prepared instrument was reliable to conduct this research. There for the general Cronbach's Alpha value was 0.845 using 12 numbers of items. The Cronbach's Alpha value for independent variables which were price, quality, after sale services and product features were 0.749, 0.837, 0.833 and 0 .888 respectively separately which were all indicates this instrument was reliable.

6. Data collection methodology

The required respondent sample size was three hundred eighty five (385). But incomplete response may happen during data collection time. Therefore 10% which is 39 respondent were added in to the performance sample to make it 424(25 for Dessie and 14 for Kombolcha) and the researcher got an opportunity to select only the appropriately filled of 385 questionnaire. Fifteen (15) ideal mobile shops were selected (10 in Dessie and 5 in kombolcha) to collect data within one week time.

7. Data analysis

After data was collected in quantitative way, only the required 385 questionnaire were included in the analysis. Descriptive statistics methods of data analysis like frequency and percentage using cross tabulation and graphs were implemented for data presentation. Binomial logistic regression was used to analyze the effect of dependent variables on dichotomous dependent variable which was consumers' preference between local and foreign brand. According to Raymond (2013)binomial logistic regression analysis is conducted using the following model to interpret the outcome when two or more independent variables are involved

$$P(y) = \frac{1}{1 + e^{-(b0+b1X1+b2X2+b3X3+b4X4)}}$$

Where:-

P(Y) = consumers' preference

X1 = product price   X2 = Product Quality   X3= after sale   X4= product features

b0 = constant   b = beta

Chi-square(x2)was also applied for presenting data analysis and interpretation based on objectives .Mean scores were rated between 1 and 5 (1 was very poor to 5 was very good). According to Jun Sun (2007; Warawan (2010andMirjam (2013) score interval and mean interpretation had been calculated as follow to understand consumers intention on each decision factors.

Interval = highest scale – lowest scale

                      Number of scales

          = (5-1)/5

          = 0.8

Therefore, interpretation will be

1 to 1.80 -------------------Very poor   1.81 to 2.60 ----------------Poor

2.61 to 3.40 --------------moderate   3.41 to 4.20 --------------Good

4.21 to 5.00 --------------Very good

According to Raymond (2013) and Safiek and Azizul (2012)mean ranking is a method to identify dominant decision factor. It was accordingly applied also to identify the dominant factor from the given variables as factor which has high mean value to be a dominant factor and all of them ranked in such a way that.

Result analysis based on research objectives

1. Dominant factors preferred for decision making to buy locally assembled mobile phones.

Table 4.10: Mean value of price factors

List of factors	N	Mean	Std. Deviation	Interpretation of mean value
product price value	385	3.6156	1.05216	Good
product promotional price cut	385	3.2805	1.01513	Moderate
Aggregate score	385	3.44805	1.033645	Good

 Source: SPSS output

Table 4.10 explain that from the list of two sub variables which were identified as a parameter to measure price of handsets, product price score high mean value of 3.6 and promotional price cut score smaller mean value than product price with mean score of 3.2. The aggregate mean of price factors were 3.45 which was interpreted as good.

Table 4.11: Mean value of quality factor

List of factors	N	Mean	Std. Deviation	Interpretation of mean value
Performance	385	3.174	0.69847	Moderate
Durability	385	3.3169	0.69847	Moderate
Maintainability	385	3.2468	0.68761	Moderate
Design and functioning characteristics	385	3.0987	0.70388	Moderate
Aggregate score	385	3.2091	0.697108	Moderate

Source: SPSS output

According to table 4.11, variables which were identified as a parameter to measure quality of mobile handsets portray different value of mean score. Durability score higher mean score of 3.31 followed by maintainability with mean score of 3.24 and performance is the next with mean value of 3.17. Design and functioning characteristics score the list mean value of 3.09 but its standard deviation indicates that its data is more dispersed than the rest three variables. In general, all these variables show close mean value. The aggregate mean score of quality variable was 3.21 indicating that moderately rated by the respondents.

Table 4.12: Mean value of after sale services factor

List of factors	N	Mean	Std. Deviation	Interpretation of mean value
Availability of accessories	385	3.5455	0.77637	Good
Warranty services to return product if defect is happened	385	3.0935	0.80142	Moderate
Aggregate score	385	3.3195	0.788895	Moderate

Source: SPSS output

Table 4.12 above presenting that from these two variables which were selected as a parameter to measure after sale services of the product indicates availability of accessories is score high mean value of 3.54. Product return services score 3.09 of mean and also a little bit has dispersed data than availability of accessories because its standards deviation has small increment. The aggregate mean score of after sale service was 3.32 indicating that moderately rated by the respondent.

Table 4.13: Mean value of product features

List of factors	N	Mean	Std. Deviation	Interpretation of mean value
Multimedia player	385	3.2286	1.66449	Moderate
Internet facility	385	2.9818	0.64322	Moderate
Camera quality	385	2.974	0.62862	Moderate
Battery life	385	2.9065	0.67437	Moderate
Aggregate score	385	3.022725	0.902675	Moderate

Source: SPSS output

Table 4.13 presented mean value of sub variables which were also selected to measure product features. In this table multimedia is score higher mean value of 3.22 than others. The remaining three variables which are internet facility, camera quality and battery life are scored almost similar mean value which are 2.98, 2.97 and 2.90 respectively. The aggregate mean score of feature factor was also 3.02.

Table 4.14: Aggregate mean value and rank of decision factors when choosing local mobile handset

List of factors	N	Mean	Std. Deviation	Interpretation of mean value	Mean rank
Product price	385	3.44805	1.033645	Good	1ST
After sale service	385	3.3195	0.788895	Moderate	2ND
Product quality	385	3.2091	0.697108	Moderate	3RD
Product features	385	3.022725	0.902675	Moderate	4TH

Source: SPSS output

All the analysis based on table 4.14 above portray that price score high aggregate mean value of (M =3.44) followed by after sale service with mean score of (M= 3.31). The list mean exhibited by quality and features with mean score of (M=3.2) and (M =3.0) respectively.Price was ranked as first dominant factor which indicate most respondents were significantly attracted by it for decision making because of product affordability. After sale service and quality of product took the second and third stage respectively. Product features was the list important decision factor suggested by the respondents. Even though there was a little beat mean variation between them, three factors which are after sale, quality and features had close mean value which were categorized as moderately considered by the respondents when they were intended to buy local mobile handset. This implies that respondents had found the level of existence of these three factors as packages in the local mobile handsets were not as intended as by them.

In previous literature reviewed, different researchers were suggested that the determinants of decision to have mobile handsets are widely different in different circumstances.

2. Analysis of effect of decision factors on consumers' preference between local and foreign brand

Logistic regression used to test models of dichotomous dependent variable based on one or more independent variables that can be either continuous or categorical (Pallant, 2007 and Kothari, 2004). Its importance is to assess how well your set of independent (predictor) variables predicts or explains your dependent variable. In this analysis there was dichotomous dependent variable which was brand preference (local or foreign) for the question labeled 'from where your phone would be prefer?' and categorical independent variables which were product price, product quality, after sale service and product features. The dependent variable had one dichotomous variable with two categories identified as foreign and local. The original code of these categories were local = 1 and foreign = 2. Since logistic regression analysis conducted only using the value 0 and 1 according to Pallant (2007) and Kothari (2004), the original code of these categories were transformed to new logistic regression code as foreign = 0 and local = 1. After the recoding of categories, logistic regression analysis was conducted to get the following outputs:

Table 4.15: model summery of logistic regression

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	452.894[a]	.189	.252
a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.			

Source: SPSS output

According to table 4.15 above, Cox & Snell R Square and the Nagelkerke R Square values elicit the amount of variation in the dependent variable explained by the model. Therefore Cox & Snell R Square was ($R2 = 0.189$) and Nagelkerke R Square was ($R^2 = 0.252$). This value indicates dependent variable was explained between 18.9% and 25.2% by these set of variables.

Table 4.16: Hosmer and Lemeshow Test

Step	Chi-square	Df	Sig.
1	7.318	8	.503

The Hosmer and Lemeshow test of model fit is the reliable model test used to identify if the model could fit or not by looking its sig value (Pallant, 2007). According to Pallant(2007) again, if the p- value is less than 0.05 in Chi-squareHosmer and Lemeshow test, it indicates that the model is poorly fit. But if it greater than 0.05, it indicates that its support of the model. There for in table 4.16above, Chi-squareHosmer and Lemeshow test model for this analysis had $X^2(8) = 7.3$, $p > 0.05$ which was supporting the model summery of logistic regression.

Table4.17: effect analysis of binomial logistic regression

List of variables		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	Product price	1.020	.145	49.676	1	.000	2.773
	Product quality	.489	.210	5.424	1	.020	1.631
	After sale services	.167	.182	.839	1	.360	1.182
	Product features	-.136	.187	.525	1	.469	.873
	Constant	-5.340	.855	38.980	1	.000	.005
a. Variable(s) entered on step 1: product price, product quality, After sale services, Product features.							

Source: SPSS output

Table 4.17above illustrate the result of product price was significantly predict whether a consumers prefer local or foreign mobile brand at, b = 1.02, Wald X2(1) = 49.68, p < 0.05. Product quality was significantly predict whether a consumers prefer local or foreign mobile handset at, b = 0.489, Wald X2(1) = 5.42, p < 0.05 also. But after sale service was not significantly predict whether a consumer prefer local or foreign mobile handset at, b = .167, Wald X2(1) = .839, p > 0.05.

The odds ratio (OR) or Exp(B) of product price, product quality and after sale were greater than one which was indicating that if they are independently increased by one unit when the remaining independent variables are constant, the odds of outcome also occurring increase(Pallant, 2007).The odds ratio of product features was less than one which indicates when it increase, the odds of outcome occurring decrease. The above analysis implies that consumers in these study areas are probably being price sensitive whenever they made a buying decision.

Conclusion

1. Dominant factors preferred for decision making to buy locally assembled mobile phones

The identification of decision factor were takes place based on the respondents' agreement level how they perceive these four factors when they think about locally assembled mobile handsets. Whenever the respondents give their agreement level as good for price it means that price tag of local handsets are affordable. There for respondents in this study area believed local handset had affordable price value. But in the case of remaining three factors which were product quality, after sale service and product features, respondents give their agreement level as moderate level according to the mean score result interpretation. These moderate results imply that availability of these three factors as packages were not asconsumers' expectation.   It could be a problem for local assemblers that their customers probably pulling away or switched to other companies product which might be provide these package with affordable price in tangible way. Firms need to be work hard to satisfy their consumers' need by incorporating attributes in their products to make their consumers loyal by providing credible product packages. Unless, as this study stated its problem justification before, the competitive pressure of contemporary market will become very challenging for these local assembler not only for their income declination but also for their survival as an organization.

2. Analysis of effect of decision factors on consumers preference between local and foreign brand

Decision variables which were including product price, product quality, after sale service and product features were analyzed to understand their effect on consumers' product preference between local and foreign mobile handsets. The binomial logistic regression result analysis elicits that only product price and product quality had significant effect to make their preference. But based on Wald result in binomial regression table, product price was dominantly had 49.6% effect compared to product quality which was 5.4%. These selected independent variables also describe the variance only between 18% - 25%. The remaining factors had no significant effect for the model. This result implies that consumers' product preference in this study area sprobably affected by product price affordability before they are giving much more intention to other product packages.

Recommendation

Now a day, there is very fires global computation of mobile phone market. As it is stated earlier, regulatory issues and competitive pressure become a common set of challenges for all actors in mobile handset market especially for local assemblers operating in Ethiopia. To ensure market existence, local firms must have strategies which are helpful to challenge present situation. Therefor the following recommendations are suggested related to locally assembled mobile handsets in terms of decision factors based on the objectives of this study. Based on, the problem identified in chapter one, preference of foreign brand and competitive pressure from international brand in the context of globalization become very challenging aspect for local mobile assembler. Since moderately rated variables have a high effect on consumers buying tendency, local assembler need to work hard to increase their competitiveness in terms of quality, after sale service and product features. It is also better to conduct further study for each independent brand using these and other additional attributes to understand their acceptance level.

Reference

Ali I. C.; Syed A. A.; Muhammad A.; Rashid M. C.;Zafarullha; Siddique and Asif M,(2011). Impact Of After Sale Service Characteristics on Customer Satisfaction. *Information management and business review.* vol. 3, no. 6, pp. 360-365, iss 2220-3796. HYPERLINK "http://www.academia.edu/1163749/" http://www.academia.edu/1163749/ .Accede on January 15/2015.

Beri G.C (2008). *Marketing research fourth edition.* Published by Tata McGraw Hill Education Privet Limited, 7 west Patel Nagar, New Delhi, India.

Cynthia, G.; Richard D.; Sylvester G. (2013). Ghanaian Consumers of Mobile Phones: Is the Preference Local or Foreign? *International Journal of Social Science (vol.1, No.3, P. 67-76).*   HYPERLINK "http://www.rassweb.com" http://www.rassweb.com .Accede on December 5/2014.

Edwin C. I, Nwaizugbo C. I, Anayo D. N and Victor I. O, (2013). Effects of intrinsic and extrinsic product cues on consumers' purchase intention: a study of alcoholic beverage consumers in a developing country metropolitan city. *International Refereed Research Journal. Vol.–IV, Issue–3. pp. 1-11.*   HYPERLINK "http://www.researchersworld.com" www.researchersworld.com . Accede on January 15/2015

Hajra Arif ;Shahbaz Ahmed and Muhammad Farrukh(2015). Factors Affecting Customer's Preferences to Buy Cellular Phone for Local versus International Brands: (A Case Study in Pakistan). *Journal of Marketing and Consumer Research. Vol.10 p1111-119.* HYPERLINK "http://www.iiste.org" www.iiste.org . accessed on 15 March 2015.

Hashim Z., Rashid S,& Raheel A. (2012). Mobile Phone Buying Behavior of Consumers; a Comparative Study of Rural and Urban Consumers in Pakistan. *Global Journal of Management and Business Research, V. 12, I. 6,* Ver. 1.0, p 55-59.   HYPERLINK "http://journalofbusiness.org/index.php/GJMBR/article/view/688". Accede on December 05/2014.

Mesay, S. (2013). Factors Affecting Consumer Buying Behavior of Mobile Phone Devices. *Mediterranean Journal of Social Science .vol. 4, No.12, pp.* 103-112. Doi:10.5901/mjss.2013.v4n12 p103. Accede on December 6/2014.

Mirjam D. and Ted O.(2013). Students' Perceptions and Attitudes toward Sustainable Tourism Development in Albania. *Mediterranean Journal of Social Sciences,Vol4 No 10.*Doi:10.5901/mjss.2013.v4n10p706.

Mohammad D., Behzad P. R., Mahboobeh A.(2013). The Impact of Mobile Phone Brands on Customer Satisfaction and Loyalty. *International Research Journal of Applied and Basic Sciences. Vol. 5 (8): 957-961.* HYPERLINK "http://www.irjabs.com" www.irjabs.com . Accede on December 6/2014.

Orji, O.(2013). Major Classic Consumer Buying Behavior Models: Implications for Marketing Decision-Making. *Journal of Economics and Sustainable Development, Vol.4, No.4, pp.* 164-172. HYPERLINK "http://www.iiste.org" http://www.iiste.org . Accede on December 12/2014.

Pallant, J. (2007). SPSS Survival Manual. A step by step guide to data analysis using SPSS for Windows (version 12),3rd ed., Berkshire, McGrew-Hill

Rama B. Radhakrishna.(2007). Tips for developing and testing questionnaires/instruments. *Journal of extension. V 45*, n 1. HYPERLINK "http://www.joe.org/joe/2007february/tt2.php" http://www.joe.org/joe/2007february/tt2.php . Acceded on December 22/2014

Raymond K. D. (2013). Factors Affecting Mobile Phone Purchase in the Greater Accra Region of Ghana: A Binary Logit Model Approach. *International Journal of Marketing Studies; Vol. 5, No. 6.* doi:10.5539/ijms.v5n6p151 URL. Accede on December 6/2014.

Safiek M. and Azizul Y. Y.(2012). Consumer Choice Criteria in Mobile Phone Selection: AnInvestigation of Malaysian University Students. *International Review of Social Sciences and Humanities.Vol. 2, No. 2 , pp. 203-212.* HYPERLINK "http://www.irssh.com" www.irssh.com . Acceded on 5 may/2015