CUSTOMER SATISFACTION AND POST PURCHASE BEHAVIOUR DECISION TOWARDS SMART PHONES IN THIRUVALLUR DISTRICT

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Abstract: **Growth of mobile phone technologies has created a new range of piece of equipment, a programmable mobile phone, the smart phone. Normally, smart phone users can program some application which is personalized for needs. Smart Phones have turned into very popular among youths, especially students and young Professionals these days. A Smartphone is not just a mobile phone; it is more than a mobile phone. The objective of this study is to investigate Post Purchase Behaviour Decision towards Smart Phone users. Quantitative data (Primary) was collected by means of a survey in which samples of 300 Smartphone (IOS, Android, Windows, and Blackberry) users were taken by using convenient sampling technique. Moreover, eight important factors were selected and analyzed through the Structural Equation Modeling (SEM) was applied.**

Keywords: **Post Purchase Behaviour, Smart phones, Convenient sampling, Structural Equation Modeling.**
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I. INTRODUCTION

Nowadays mobile phones are called as smart phone, as they offer more highly developed computing power and connectivity than an existing mobile phone. Simply, a smart phone is a miniature computer, as it is powerful and sufficient to distribute various functionalities comparable to a computer. The releases of Quad-core processors smart phone recently have promoted reaffirmed this assertion. Along with the smart phone fundamental capabilities to video call and conferencing, group chat, sending bulk videos, flashlight, compass, an address book, note-taking, digital messaging, and performing multiple tasks in simple instructions. Smart phones have unmitigated list of information dealing out functionalities such as running personal time schedule, accessing Internet contents, editing documents, utilizing location- awareness function, and many other exciting applications. All these functions are delivered all the way through the Applications installed on the smart phone. It is stressing that the ever increasing importance of mobile software and other mobile contents are solicited by the prevalent of smart phone. More apparently the Smartphone includes sensors: magnetometer, proximity sensor, barometer, gyroscope, or accelerometer. Since 2010, smart phones adopted integrated virtual assistants, such as Apple Siri, Amazon Alexa, Google Assistant, Microsoft Cortana, BlackBerry Assistant and Samsung Bixby.

1.1 TYPES OF SMART PHONES BASED ON OPERATING SYSTEM

The type of smart phone can be described through their operating system which is pre-installed in every mobile phone while buying, here the extraordinary and prominent mobile operating systems are listed

- ➢ Android is a mobile operating system was developed by Andy Rubin, now undertaken and developed by Google
- ➢ iOS (formerly iPhone OS) is a proprietary mobile operating system founded by Apple Inc. The Mobile which was introduced the use of multi-touch gestures for navigation.
- ➢ Tizen was released in the Indian market on January 14, 2015.
- ➢ BlackBerry OS 1999, RIM introduced its first BlackBerry Smartphone, provided that secure real-time push-email communications on wireless devices. Services such as BlackBerry Messenger provide the integration of all communications into a single inbox.
- ➢ Windows Mobile was working under the principal of Windows CE kernel and first developed as the Pocket PC. This was available in both touch screen and non-touch screen formats.
- ➢ Symbian was found by Psion as EPOC32. It was the world's most extensively used Smartphone operating system until Q4 2010.

1.2 STATEMENT OF THE PROBLEM

Nowadays, the mobile phone is the artificial organ for human kind. This device is not only for communication purpose but also for daily life activities and it placed the vital area in our surrounding. Mobile phones have become so cheapest have possession of that they have frequently replaced by phones and phone books with the exception of in rural areas with many people. In this study the author is made-up the study of Customer Satisfaction and Post Purchase Behaviour Decision towards Smart Phones.

1.3 SCOPE OF THE STUDY

In this study, the researcher has analyzed Customer Satisfaction and Post Purchase Behaviour Decision towards Smart Phonesin Thiruvallur district only. The usage of Smart phone is growing day by day as it makesa task communication. The fondness of smart phones may be differing from person to person based on his necessities and nature of the job.

1.4 OBJECTIVES

The researcher carried out the study with the following:
- ✓ To identify the socio, economic profile of the respondents.
- ✓ To identify their satisfaction level of Smartphone users.
- ✓ To understand their post purchase dissonance.
- ✓ To offers suitable suggestion based on the findings.

II. REVIEW OF LITERATURE

Structural equation modeling makes possible the application of numerous analysis techniques together, which are built on the general linear model (GLM) (Ullman, 2006). (Garson, 2011), in which the relationship between the latent variables and indicators (observed variables) are modeled and the goodness-of-fit is analysed. Peter (2011) has stated that SEM is most useful when assessing the casual relationship between the variables as well as verifying the compatibility of the model. MesaySata (2013), Factors distressing Consumer Buying Behavior of Mobile Phone Devices, The principle of this research is to investigate the factors disturbing the choice of buying mobile phone devices in Hawassa town. In sortofachieve the objectives of the study, a sample of 246 consumers were in use by using simple random sampling technique.

Sudha Rani, Neeta Sharma (2014), In Rohtak City Consumer Behavior towards practice of Smartphone, This research determine findings revealed that utmost Smartphone users are female respondent who are students and include income level 5000-30000 P.M and cause of selection of current Smartphone are features that gives them many amenities like internet and any apps. Malviya, S.& Sharma, G. (2014) examined the customer perception regards the e-banking services. ANOVA is applied to study the relationship between the occupation and customer perception of e-banking services. Kavitha and Yogeswari (2015), Attitude Towards Smartphone With Special References - Chithode, The consumer buying a range of smart phones which gratify his wants and they are always influenced by his purchasing activities by some considerations which lead him to select a particular brand or a particular operating systems in preferred to others. M Ragupathi, G Prabu(2015)the study focuses on customers' satisfaction on smart phone users mainly college students. Descriptive research technique has been applied for this research. The statistical methods are applied for T-Test, F-Test, and Factor analysis. There is a significant difference between the satisfaction level of Smartphone users and gender.

Dr. S. K. Kaushal and Rakesh Kumar (2015), Consumers' Reaction towards Smart Phones: it is obvious that most of the customers perceive mobile phone to be an important and integral part of their life. While bearing in mind a brand most of the consumer gives due significance to product features like unique ability, reliability, quality, after sales service and ease of use of latest technology like operating system etc. DeepikaGanlari (2016), A Study on consumer buying behaviour of mobile phones, the chief principle of this cram is to analyse consumer behaviour towards smart phones in the Indian market. The result in this study shows that branding, product design, product performance and price have the influence on people's buying decision process. Whether the product can satisfy people's need affect consumer behaviour. Sameer Sinha(2016).This research regards to perception of consumers of Bhopal city towards mobile hand set. The primary data is collected through questionnaire designed in a way to collect information.

III. METHODOLOGY

3.1PRIMARY DATA

The primary data are those which are collected afresh and for the first time, and thus happen to be original in character. The researcher has collected the primary data from their respondents through questionnaire.

3.2 SAMPLING DESIGN

Convenient sampling method has been applied. The respondent easy to get ateffortlessness, at time and right place has been selected. Concern has been taken to include all types of customers, with varying income level. In total the researcher has contacted 300 respondents in Thiruvallur district.

3.3 RESEARCH TOOLS WERE APPLIED

The most powerful tool Structural Equation Modeling (SEM) was applied to identify the causal relation among the variables.

IV. ANALYSIS AND INTERPRETATIONS

4.1 SPECIFIC MEASURES FOR GOODNESS OF FIT

There are precise measures that can be calculated to establish goodness of fit. Goodness of fit is inversely related to sample size and the number of variables in the model. Thus, the thresholds below are simply a guideline.SEM analysis is applied based on data from 300 respondents with the AMOS 20.0 statistical package from 5 point Likert-scale survey to assess "Customer Satisfaction and Post Purchase Behaviour Decision towards Smart Phones in Thiruvallur District". Circles represent latent variables and rectangles represent measure variables.

The model shown below is Recursive Model - a causal model that is unidirectional (one-way causal flow). It has neither feedback loops nor any reciprocal effects. In a recursive model, a variable cannot be both cause and effect at the same time.

FIG1
STRUCTURAL EQUATION MODEL
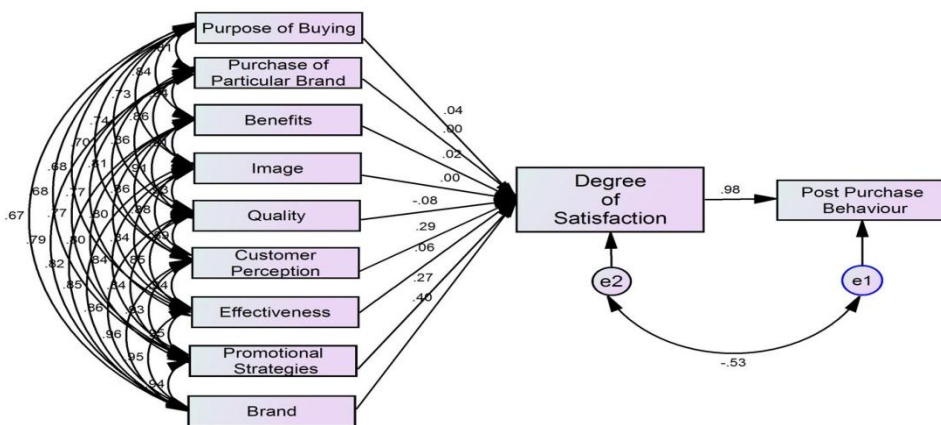
4.2 INTERPRETATION

When running Path (structural) model, many different fit statistics are used to help determine whether the model provides adequate fit for the data. The model is recursive with
Sample size = 300

- Observed, endogenous variables are Post Purchase Behaviour and Degree of Satisfaction.

- Observed, exogenous variables contains Quality, Image, Benefits, Purpose of Buying, Purchase of Particular Brand, Effectiveness, Customer Perception and Promotional Strategies

- Unobserved, exogenous variables are e1 and e2

The following table depicts the Model fit indices and relevant measurements were capable to determine the best model fit

TABLE NO.1
MODEL FIT INDICES AND SUMMARY OF STRUCTURAL EQUATION MODEL

Indices	Value	Suggested value
Chi-square value	36.908	-
DF	8	-
Chi-square value/DF	4.613	< 5.00 (Hair et al., 1998)
P value	0.194	> 0.05 (Hair et al., 1998)
GFI	1.000	> 0.90 (Hu and Bentler, 1999)
RMR	0.025	< 0.08 (Hair et al. 2006)
AGFI	0.984	> 0.90 (Hair et al. 2006)
CFI	1.000	> 0.90 (Daire et al., 2008)
RMSEA	0.000	< 0.08 (Hair et al. 2006)

4.3ABSOLUTE **FIT INDICES**

Absolute fit indices determine how well the a priori model fits, or reproduces the data. Absolute fit indices include, but are not limited to, the Chi-Squared test, RMSEA, GFI, AGFI, RMR, and SRMR.

The Chi Square for goodness of fit (CMIN) is 36.908 with 8 dfs. This is significant at p.>0.05 (p = 0.194) and the null hypothesis of goodness of fit (H0: The model perfectly fits the data) is rejected. Chi Square very readily reaches significance with large sample sizes (here sample size is 500), even when all other indices indicate a good fit. It is still worth looking at some of the other indices.

- The value of RMR in our model is 0.025 which is less than .08 then it is acceptable.
- Here, the value of RMSEA is 0.000 which is acceptable.
- The values of GFI and AGFI in our model are 1.000 and 0.984 respectively (which are greater than 0.90) and indicating acceptable model fit.
- Here, the value of CFI is 1.000 which is great.

The RMSEA, CFI, NFI and NNFI are four good indices to verify that a model is adequate. Here, all the four indices are at acceptable level.

4.4 PARAMETER ESTIMATES

In addition to considering overall model fit, it is important to consider the significance of estimated parameters, which are similar to regression coefficients.

TABLE 13
VARIABLES IN THE STRUCTURAL EQUATION MODEL ANALYSIS

Variables			Un-standardized co-efficient	S.E.	Standardized co-efficient	t value	P value
Degree of Satisfaction	<--	Quality	.287	.026	.287	2.781	<0.001 **
Degree of Satisfaction	<--	Image	-.001	.045	-.001	-.022	0.982
Degree of Satisfaction	<--	Benefits	.025	.036	.023	.613	<0.001 **
Degree of Satisfaction	<--	Purpose of Buying	.057	.054	.041	2.317	0.032***
Degree of Satisfaction	<--	Purchase of Particular Brand	.002	.011	.002	.061	0.043***
Degree of Satisfaction	<--	Effectiveness	.055	.016	.056	1.539	0.124
Degree of Satisfaction	<--	Customer_Perception	.295	.036	.289	7.462	<0.001 **
Degree of Satisfaction	<--	Brand	.394	.037	.404	10.515	<0.001 **
Degree of Satisfaction	<--	Promotional_Strategies	.265	.031	.267	7.863	<0.001 **
Post Purchase Behaviour	<--	Degree of_Satisfaction	.983	.022	.976	55.423	<0.001 **

Note: ** denotes significant at 1% level

The asterisks (***) indicate statistical significance i.e., the p value is lesser than .05 in majority of the cases. All loadings are highly significant except three cases. The regression weights associated with the Seven out of Ten variables are statistically significant. It is likely that this predictor model is more appropriate to describe the Impact of Degree of Satisfaction dimensions on **Post Purchase Behaviour.**

The following observation from SEM application are presented here

- Here the coefficient of Quality is 0.287 represents the partial effect of Quality on Degree of Satisfaction, holding the other variables as constant. The estimated positive sign implies that such effect is positive that Degree of Satisfaction would increase by 0.287 for every unit increase in Quality and this coefficient value is significant at 1% level.

- The coefficient of Image is .025represents the partial effect of Image on Degree of Satisfaction, holding the other variables as constant. The estimated negative sign implies that such effect is negative that Degree of Satisfaction would decrease by .025for every unit increase in Image and this coefficient value is not significant at 5% level.
- Here the coefficient of Benefits is 0.287 represents the partial effect of Benefits on Degree of Satisfaction, holding the

other variables as constant. The estimated positive sign implies that such effect is positive that Degree of Satisfaction would increase by 0.287 for every unit increase in Benefits and this coefficient value is significant at 1% level.

➢ Here the coefficient of Purpose of Buying is .057 represents the partial effect of Purpose of Buying on Degree of Satisfaction, holding the other variables as constant. The estimated positive sign implies that such effect is positive that Degree of Satisfaction would increase by .057 for every unit increase in Purpose of Buying and this coefficient value is significant at 5 % level.

➢ Here the coefficient of Purchase of Particular Brand is 0.002 represent the partial effect of Purchase of Particular Brand on Degree of Satisfaction, holding the other variables as constant. The estimated positive sign implies that such effect is positive that Degree of Satisfaction would increase by .002 for every unit increase in Purchase of Particular Brand and this coefficient value is significant at 5% level.

➢ The coefficient of Effectiveness is .055 represents the partial effect of Effectiveness on Degree of Satisfaction, holding the other variables as constant. The estimated negative sign implies that such effect is positive that Degree of Satisfaction would increase by.055 for every unit increase in Effectiveness and this coefficient value is not significant at 5% level.

➢ Here the coefficient of Customer Perception is .295 represents the partial effect of Customer Perception on Degree of Satisfaction, holding the other variables as constant. The estimated positive sign implies that such effect is positive that Degree of Satisfaction would increase by .295for every unit increase in Customer Perception and this coefficient value is significant at 1% level.

➢ Here the coefficient of Brand is .394 represents the partial effect of Brand on Degree of Satisfaction, holding the other variables as constant. The estimated positive sign implies that such effect is positive that Degree of Satisfaction would increase by .394 for every unit increase in Brand and this coefficient value is significant at 1% level.

➢ Here the coefficient of Promotional Strategies is .265represents the partial effect of Promotional Strategies on Degree of Satisfaction, holding the other variables as constant. The estimated positive sign implies that such effect is positive that Degree of Satisfaction would increase by .265 for every unit increase in Promotional Strategies and this coefficient value is significant at 1% level.

➢ Here the coefficient of Degree of Satisfaction is .983 represents the partial effect of Degree of Satisfaction on Post Purchase Behavior, holding the other variables as constant. The estimated positive sign implies that such effect is positive that Post Purchase Behaviour would increase by .983for every unit increase in Degree of Satisfaction and this coefficient value is significant at 1% level.

These are factor loadings but in AMOS they are called "standardized" regression weights. The highest is 0.388 belongs to Service Quality dimension – Electronic Service to Customer Satisfaction and the lowest is -0.178 belongs to Service Quality dimension – Information to Customer Satisfaction. The highest among other variable is 0.796 belongs to Customer Satisfaction on Service Quality to Customer Loyalty

Standardized estimates allow evaluating the relative contributions of each predictor variable to each outcome variable. Standardized estimates allow the relationships among latent variables to be compared.

➢ Brand appears to be the best indicator of the Degree of Satisfaction than others. Their standardized regression weights are .404. This means that impact explains about .40 or 40% of the variance in the Customer Satisfaction and Customer Loyalty (0.40) (shown in SEM Model).

➢ Degree of Satisfaction appears to be the best indicator of the Post Purchase Behaviour than others. Their standardized regression weights are .976. This means that impact explains about .98 or 99% of the variance in the Customer Satisfaction and Customer Loyalty (0.98) (shown in SEM Model).

➢ Awareness on Degree of Satisfaction has a high R2 of 0.846 (square of .940) meaning that Awareness on Degree of Satisfaction explains practically high variance in this item. Impact of Degree of Satisfaction on Post Purchase Behaviour has R2 0.731 (square of 0.855) meaning that Degree of Satisfaction on Post Purchase Behaviour explains practically little more variance in this item than others.

V. RESULTS AND DISCUSSION

The customer buying a range of smart phones which gratify his wants and they are always influenced by his buying activities by some considerations which direct him to select a particular brand or a particular operating systems in preferred to others. So, Brand appears to be the best indicator of the Degree of Satisfaction than others the highest among other variable is 0.796 belongs to Customer Satisfaction on Service Quality to Customer Loyalty. Degree of Satisfaction explains practically high variance in this item.

Impact on Satisfaction on the Post Purchase Behaviour. On one occasion a customer buys a product they will enter some degree of post purchase behaviour. These behaviours based on their satisfaction or dissatisfaction, will which ever build customer equity and brand loyalty or lead to developing sales and brand image issue. This all is interrelated to their relationship between their potential and the apparent performance of the product in their hands.

REFERENCES

[1] DeepikaGanlari, Pradeep Kr. Deka and ChandanDutta, A study on consumer buying behaviour of mobile phones, Journal of Management in practice, vol.1, No.1, 2016, pp 1-26.

[2] Dr.T.N.R.Kavitha and K.Yogeswari "A Study On Customer Attitude Towards Smartphones With Special References to Chithode, Erode District". IOSR Journal of Business and Management (IOSR-JBM), PP 33-36.

[3] Garson, Justin. 2011. "Selected Effects Functions and Causal Role Functions in the Brain: The Case for an Etiological Approach to Neuroscience." Biology and Philosophy 26: 547–65

[4] Dr. S. K. Kaushal and Rakesh Kumar, Consumers' reaction towards smart phones: A Study of students of university of Lucknow, India, BVIMSR's Journal of Management Research, Vol. 7 Issue – 2, 2015, pp.143-149.

[5] Malviya, S., Saluja, M. S., & Thakur, A.S. "A Study on the Factors Influencing Consumer's Purchase Decision towards Smartphones in Indore" Computer Science and Management Studies, Volume 1, Issue 6, November 2013, pp. 14-2.

[6] MesaySataShanka (2012) "Bank Service Quality, Customer Satisfaction and Loyalty in Ethiopian Banking Sector" Journal of Business Administration and management Science Research Vol. 1(1) pp. 001-009, December 2012.

[7] M Ragupathi, G Prabu(2015)A study on customer satisfaction towards smart phone users International Journal of Applied Research 2015; 1(10): 270-274

[8] Peter T (2011), Adoption of Mobile money technology: Structural Equation Modeling Approach. Eur. J. Bus. Manage. 3 (7).

[9] Sameer Sinha 2016A Study on Consumers Perception towards Mobile Handset SSRG International Journal of Economics and Management Studies (SSRG-IJEMS) – volume3 issue3 May to June 2016

[10] Sudha Rani1, Neeta Sharma, "Consumer Behavior towards Usage of Smartphone (In Rohtak City)", International Journal of Enhanced Research in Management & Computer Applications, Vol. 3 Issue 9, 2014, pp: 9-14.

[11] Ullman, J. B. (2006). Structural equation modeling. In B. G. Tabachnick& L. S. Fidell (Eds.), Using multivariate statistics, (5th ed.; pp. 653–771). Boston: Allyn& Bacon