

SOCIAL INFLUENCE AND PRICE, INFLUENCE ON CONSUMER RESISTANCE TO INNOVATION

MAZHAR ABBAS
SHAHIMI BIN MOHTAR
*School of Technology Management and Logistics
University Utara Malaysia*

ABSTRACT

The basic purpose of this study is to investigate the consumer buying behavior. In this study smartphone used as innovation. In the technological advancement smartphone is best communication tool and playing significant role in the society. In this study researcher identified some factor that influence the consumer buying behavior and consumer always buy new product through focusing all these factors. Data were collected from 250 respondents through self-administered questionnaires and SmartPLS 2.0 M3 was used to analyze the data.

Keywords: price, social influence, resistance to innovation, smartphone

INTRODUCTION

The smartphone has been one of the designs since the starting of 21st century. The increasing of the different operating system in smartphone making smartphone as one of the needs of life where it can act as a communicating machine and even can act as a PC. As the income of smartphone enhances each of the years, manufacturer companies begin studying the customer that buy the smartphone or potential smartphone buyer.

Worldwide development in the telecom technology has made smartphones as one of the basic need in the modern life of today particularly among the young consumers. In the recent time cell phones are no longer a social interaction device but has progresses into multimedia machine which is known as smartphone in this 21st century (Ting, 2011). Customers are observed to be depending on their mobile phones when they view them as a requirement and have powerful tendency for ongoing high utilization, being involved and reluctant to part from them (Tian et al., 2009). The smartphone is the key gadgets for obtaining the mobile internet and highly effective new computers that local programs and ability to link and run a numerous of internet-based services. The widespread use of internet, having access on the go to the social networking sites, news websites, mobile commerce, and trading e-mails, are on the growing pattern and the smartphones is on higher requirements as the right resources for this development.

A smartphone is not only the development it is something that can replace the cellphone to be the key device in the future of cell cellphone industry. The pattern for changing regular cell mobile phones with mobile phones is getting heat up and this pattern is forcing the regular mobile phones to the edge of termination. Nowadays, young consumer more consider the smartphone and they tend to move their choices from a basic cell phone to a Smart cellphone. Different teenagers have his/her own taste and need when buying a new smartphone. How teen acts and chooses when buying a smartphone can correspond with their attribute. Moreover in other similar studies it is exposed that there are always particular elements that affect customers respond in specific ways and especially when it is time to decide about buying, these aspects play a crucial role. Some intensely impacting quality in this process is being price conscious, brand conscious, quality conscious, technology conscious and recreation conscious.(Chow et al, 2012) There are many other aspects that can influence the choice of teenagers to use and purchase

Smart cellphone. Due to this problem behavior of smartphones users become more confusing and unpredictable. This confusion lead to the low sale and consumer resistance to smartphones.

LITERATURE REVIEW

Social Influence

Theory of social learning speaks for both ecological and intellectual aspects connect to effect social understanding and activities. It concentrates on the understanding that happens contained by a social perspective. It views that individuals gain from each other, such ideas as observational understanding, replica, and modeling (Abbott, 2007). This concept initially progressed from behaviorism and it is called social cognitive learning. The concept indicates that social learning is affected by emotional aspects and is founded on reactions to ecological stimulating elements. Instead concept of social effect declares that aspects like strength (how important the impacting individuals are), and immediacy (how close the team are, in terms of space and time) intensely effect on the possibility that an individual will react to social effect. The effect is most highly effective when everyone in the team (apart from the individual being persuaded) clearly confirms.

For innovative products (such as smartphones), informative resources such as past activities, recommendations from friends and family can have the part in buying decision. (Deeb,2012) The literature generally reveals that adopting of (primarily) cell mobile phones were substantial advantages not for adopters also for community at large (Harsha, 2011).

Social variations also be a factor in adopting of cell mobile phones. A past research by school of Taiwan, evaluating the adopting amount and the kind of utilization among 2 different country of Asian and People in America reveals that the more variations between the opinions and needs of a community, the utilization, demand, and the amount of adopting will vary in that order.

Another research among the young customers of Blackberry smartphones in Indonesia (Heryiati,2011) shows how some social influence such as word of mouth (as some example of stimulating elements of the environment for the consumers) were successful in a growth of customers for using blackberry smartphones and displaying interest toward unique brand with unique requirements.

Many customers of smartphones specifically the younger ones admit that their first try to become the smartphone owners was under the impact of classmates and friends. In the research among students requirement for a smartphone in Labuan region in eastern Malaysia (Norazah, 2013) Results via several regression research exposed that social needs and social influence significantly affect students' dependent on smartphones.

Forbes journal (Parmy Olson, 2012) refers to research by Nielson, that 48% of American children below the age 12 have the Apple's iPad as number one in their wish list for gifts. The growing pattern, among the Apple customers in the US, is another signal that how the impact of another member of their community leading to the need and requirement for that particular product.

Hypothesis 1

There is positive relationship between social influence and consumer resistance to innovation

Price

In overall economics demand and supply are the most important concepts and it is the key source of industry economy. With respect to the law of demand, demand is the volume of the product that any

person will be willing and able to purchase at a specific price. Demand and supply rule of thumb described that higher the price of some products, reduce the demand of products. The relationship between quantity of product and price is called demand relationship. Thus, price relationship shows demand in other word called demand law.

With respect to Kupiec and Revell, customer's intention to buy the product depends upon the level of consumer expectations about the product to fulfill their needs when they consume it. Consumer will successfully go through the process by identification assessment, purchase, opinions and search information when they want to make purchase decision. Thus, consumer will select brand or product to utilize for different choices in the consumer market.

According to Bettman, Brown and Payne (2000), the different situation will be influenced from different aspects. Customer has different preferences, needs, inspiration and way of life when they want to purchase an item (Chisnall, 1985). Some of them recommended higher quality and ready to give the higher cost, certain consumers are not (Monroe, 2003). Moreover, the customer behavior towards buying an item might be analyzing the customer attributes. It consist of cost conscious, product conscious, higher quality conscious, fun conscious, growth-conscious, worried by over choice, energetic and brand (Leo, Bennett, and Hartel, 2005). Therefore, it is important to review the aspects that affect consumer's decision towards buying a Smartphone. The factors under research in this study consist of product features, product name, cost, and public impacts. Materialism has some level of effect on individuals life and also associate with wellness, individuals are satisfied when they ownership of a certain high-class item, thus they use all the ways to seeking them. Those who are powerful in materialistic are incorporated with wishes and objectives to obtain prosperity in order to processions of certain high-class products that make an impression on others and also can obtain some sense of public identification (Tim, 2002; Yusuf & Abdullah, 2003).

Theory of materialism describe the customer will perceived higher value on all high-class product, which such as higher innovative or new technology product, because they are usually charge at irrational higher cost (Vitzthum, 1995; Lange, 1925).

Moreover, the smartphone may impact the purchase intention of the customer, but it must charge at an irregular high cost. As an example, the high-class item like smartphone will become a normal or even an inferior, if the buying power of overall customers improved, which mean that everyone can have smartphone, thus it no longer can be the badges of social position (Moser & J.D, 1995; Jee Han, John, & Xavier, 2010)..

Hypothesis 2

There is positive relationship between price and consumer resistance to innovation

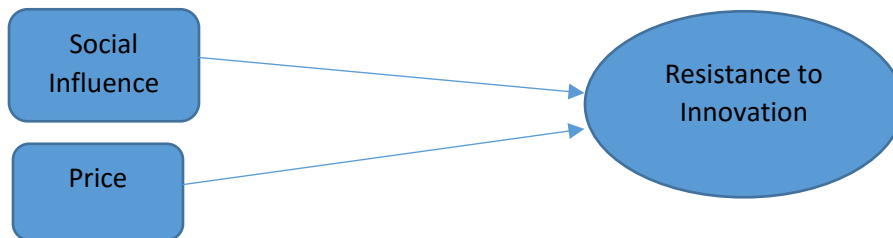


Figure 1.1

Proposed Theoretical Framework

METHODOLOGY

Norazah Mohd Suki, 2013 used a self-administered research to gather information for their research. This strategy similar to another specialist such as Mohd Azam, Maziani, Azlan, & Tan, 2011 and Chow, Chen, Yeow, & Wong, 2012. In the research performed, 400 set of questions were sent out among the university student from pre-screened individual's students at the public universities of Pakistan who has smartphone or used a smart phone before. From the 400 set of questions distributed, only 220 set of information are useful to continue to the next level which is 55% of the complete set of questions allocated. The set of questions involves three area which is area A, B and C. area A contain the market information of participant such as age, sex and so on. Section B involves questions that ask participant of their experience of using a smartphone. Area C will be the query relevant to the aspect that impact the requirement of a smartphone. The set of questions in the research used 11 item to evaluate the independent variable and 10 questions to evaluate the dependent variable by using a 6 point Likert scale method which range from 1 strongly disagree and 6 strongly agree.

DATA ANALYSIS

Demographic Analysis

To describe the demographic respondents, male 66% having high number of responses as compare to females 34 because males having dominant position in Pakistan over females due to the different languages and culture. Most of the respondents are doing the bachelor's degree representing 68% of total sample and remaining 32% doing a master degree. With respect to the mobile service provider mostly respondents were using Ufone services with 41% by using Samsung smartphones with 57.8% and they are full time university students 96.6% with monthly spending is 68.7%. from the above demographic analysis it is noted that majority of the students who have low income and they are doing bachelor's degree having Samsung android cell phone on preference basis as compared to other smartphones which are available in the present market.

Descriptive Analysis

The descriptive statistics for the study variables is identified through using descriptive analysis where the statistical value of all variables such as dependent variables and independent variable variables have been examined. The descriptive statistics for study variables as shown in the table 1.1 which presents the minimum and maximum scores, the values of standard deviation and mean of the study variables as employed in this study, as previously mentioned in chapter three the questionnaire was used in this study was designed on seven point Likert scale ranging from 1 to 6. The mean scores of the study variables are within the range of 4.206 to 4.640, the value of standard deviation for the study variables ranges from 1.028 to 1.220.

Table 1.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
P	250	1.00	6.00	4.6407	1.02872
SI	250	1.00	6.00	4.2065	1.22083
Valid N (list wise)	250				

Confirmatory Factor Analysis

In this segment the results of confirmatory analysis for this present study by using principle component analysis method. Items of the study variables have been adapted from previous studies, while this research commenced only factor analysis by using SmartPLS 2.0 M3 (Ringle et al., 2005) which have built-in feature of the CFA. According to the recommendation of (Hair et al., 2010) the large sample size required to perform CFA, where the minimum sample required is 150.

Measurement Model

According to the Hair et al (2014) convergent validity can be achieved when the factor loading of all items higher than 0.5 and no loading of any single item from other variables have higher loading than the other one which think to measure. Concerned with this study 14 items have their factor loading above than 0.5 shown in table 1.2.

The table 1.1 which is following given below poses the Cronbach's alpha, composite reliability and average variance extracted (AVE) values of all constructs. With respect to (Fornel and Larcker, 1981; Hair et al., 2014) the composite reliability should be accepted at least 0.70 and AVE should be at 0.50. In the table 1.3 which is given below, all the constructs have high reliability and their average variance extracted (AVE) is higher than cut off point of 0.50 that shows the reliability of the measurement model. In this study calculated Cronbach's Alpha to find out the internal consistency of the data. With respect to (George and Mallery, 2003) provide rule of thumb for deciding the value alpha; " $\alpha > 0.9$ - Excellent, $\alpha < 0.8$ - Good, $\alpha < 0.7$ - Acceptable. As for as this study concerned table 1.1 shows that all constructs have Cronbach's Alpha value more than 0.6. Hence this is the indication of all the variables in the study have a good consistency.

Table 1.2 Convergent Validity

Construct	Items	Loadings	Cronbachs Alpha	Composite Reliability	Average Variance Extracted
Consumer Resistance	CR1	0.952	0.924	0.946	0.781
	CR10	0.924			
	CR11	0.924			
	CR3	0.621			
	CR8	0.952			
Price	P2	0.805	0.737	0.830	0.553
	P3	0.783			
	P4	0.766			
	P5	0.604			
Social Influence	SI1	0.716	0.831	0.880	0.597
	SI2	0.775			
	SI3	0.868			
	SI4	0.803			
	SI5	0.687			

Discriminant Validity

As for as this study concerned discriminant validity of this study to guarantee the external consistency of the model, based on the comparison between the latent variables as shown in the table 1.4 which summarily, the AVE of the variables are: attitude towards consumer resistance (CR) = 0.884; Price (P) = 0.764; and social influence (SI) = 0.772.

Table 1.3 *Discriminant Validity Matrix*

	CR	P	SI
CR	0.884		
P	0.441	0.744	
SI	0.404	0.502	0.772

Note: All the values shown in diagonal and bolded represents the square route of average whilst those of the diagonal represents latent variable correlations

Structural Model

This segment treats with structural model after the evaluation of measurement model as pointed out by Hair et al., (2006) structure model deals about the dependence of the relationship in the hypothesized model of the study. In PLS, structure model gives inner modeling analysis of the direct relationship among the constructs of the study and their t-values as for as path coefficients. As argued by Argawal and Karahanna, (2000), the path coefficient is same like standardized beta coefficient and regression analysis. Where beta values of the coefficient of the regression and t-values are examined to decide on the significance. Following the rule of thumb by Hair et al., (2014), t – value greater than 1.64 is considered to be as significant, which is further used for making decisions on the purpose hypothesis.

The basic purpose of this study here to focused firstly on model evaluation with an examination of direct relationships and secondly test the hypothesized relationships among the constructs through the structural model.

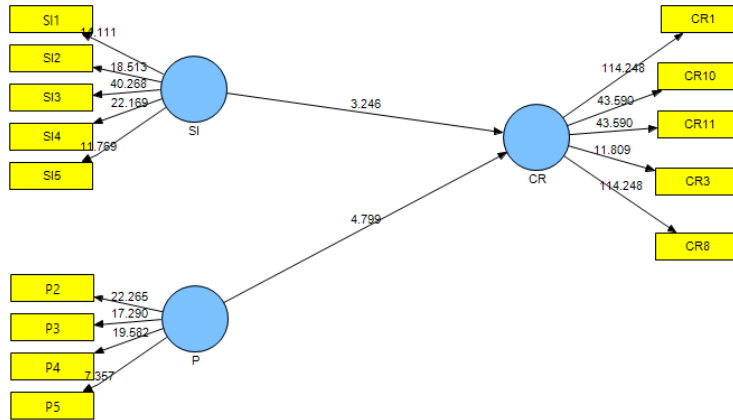


Figure 1.2 *Direct Effects*

The following diagram 1.2 displays the output results from the SmartPLS 2.0 M3 (Ringle et al., 2005) which shows the path coefficient values, t-values, p-values as well as standard error. On the basis of these standard values the hypothesis were supported or not by the researcher. The t-values, in this study derived from bootstrapping (with 500 resampling iterations for 250 cases / observations). As argues by Hair et al., (2012) bootstrapping will serve as a proxy of parameters empirical standard error.

Hypothesis Testing

The table 1.5 illustrate that all the hypothesis that were supported and accepted have t-value that is greater than 1.64 and the hypothesis which are rejected have t-value not greater than 1.64. In this study two (2) hypothesis which have direct relationships were tested, both hypothesis were proven to be supported. Table 1.4 which is given below explain the direct effect of every latent variable on the dependent variable.

Direct Hypothesis Testing

NO	Hypothesized Path	Path Coefficient	Standard Error (STERR)	T-Value	P-Value	Decision
1	P -> CR	0.319	0.071	4.507	0.000	Supported
2	SI -> CR	0.244	0.077	3.177	0.001	Supported

Assessment of effect size (f-squared)

According to Chin, (1998) Effect size indicates the comparative influence of a particular exogenous latent variable on endogenous latent variable(s) through demonstrating variation in the R-squared. Increase in the R square of the latent variable is identified to which the path is connected, relative to the latent variables proportion of unexplained variance (Chin, 1998). Thus the effect size could be showed using the subsequent formula (Cohen, 1988; Selya, Rose, Dierker, Hedeker, & Mermelstein, 2012; Wilson, Callaghan, Ringle, & Henseler, 2007):

$$\text{Effect size: } f^2 = \frac{R^2_{\text{Included}} - R^2_{\text{Excluded}}}{1 - R^2_{\text{Included}}}$$

Cohen (1988) explains f2 values of 0.02, 0.15 and 0.35 as having weak, moderate, strong effects correspondingly. Table 4.15 determines the specific latent variables effect sizes of the structural model.

Table 1.5 Effect size of Latent Variables

R-squared	Included	Excluded	f-squared	Effect size
SI -> CR	0.239	0.194	0.0591	Small
P -> CR	0.239	0.164	0.0986	Small

As stated in above table the effect size for price and influence on consumer resistance to innovation were 0.0591, 0.0986. Thus, following Cohen’s (1988) recommendation, the effects sizes of these two exogenous latent variables on consumer resistance could be viewed as small and small.

Determining the Predictive Relevance of the Model

This study further uses the blindfolding procedure to test the predictive relevance of the model. The blindfolding procedure as undertaken to assess the predictive capacity of the model. Predictive relevance is denoted by Q2. According to Hair et al., (2014) Q value is obtained by using the blindfolding to assess the parameter estimates and also assess how values are built around the model. The results were retrieved from the blindfolding output of PLS through the variable score out of which cross-validated redundancy extracted. This cross-validated redundancy analyzes the capacity of the model to predict the endogenous variables and also explain the quality of the model. Table 1.5 shows the construct cross-validated redundancy. The table 1.5 shows that in column four (4), Q2 shows the predictive relevance of 0.17 for the CR (Consumer Resistance) which shows that this model have predictive relevance. In line with the recommendation of Hair et al., (2014) if Q2 value is greater than zero (0) the model have predictive relevance for the reflective endogenous latent variable.

Table 1.5 Construct Cross validated Redundancy

Total	SSO	SSE	1-SSE/SSO
CR	1535	1269.296	0.1731

Discussion and Conclusion

In this study, researcher followed PLS method because this method is a vigorous and rigorous method to the given sample size of the study. Above table 1.4 representing the results from SmartPLS 2.0 M3. In this study on the basis of t-values hypothesis are accepted and rejected as well as used to decide on the significance. All the hypothesis that were supported and accepted have t-value that is greater than 1.64 and the hypothesis which are rejected have t-value not greater than 1.64. The above figure and table from SmartPLS represents all hypothesis, where H1 and H2, are supported. The support for H1 represents that social influence is significantly positive influence the consumer resistance to innovation (Talukder & Quazi, 2011). Friends, family, and social groups have a positive impact on consumer resistance to innovation. Consumers who are socially attached with family, friend and with their social groups who suggest and recommends the products according to their status. Similarly the support for H2 represents that price is significantly positive influence the consumer resistance to innovation. , it is important to review the aspects that affect consumer's decision towards buying a Smartphone. The factors under research in this study consist of product features, product name, cost, and public impacts. Materialism has some level of effect on individuals life and also associate with wellness, individuals are satisfied when they ownership of a certain high-class item, thus they use all the ways to seeking them. Those who are powerful in materialistic are incorporated with wishes and objectives to obtain prosperity in order to processions of certain high-class products that make an impression on others and also can obtain some sense of public identification but due to the supply and demand law they resist to buy high priced products (Tim, 2002; Yusuf & Abdullah, 2003).

This study has drawn resistance to innovation model to examine the factors influencing consumer resistance to innovation. The study here concluded results, empirical data results support the hypothesis. This study can provide deep insight of factors or antecedent influencing resistance to innovation that can better explain the consumer resistance the technology by the consumer behavior and factor that predict the consumer resistance to innovation, as a result increasing the practical and theoretical contribution of this research.

REFERENCES

- Bettman, J.R., Johnson, E.J., and Payne, J.W. (2000). Consumer Decision Making. Annual review of Psychology, 43(Spring), 50-79.
- Chisnall, P.M. (1985). Marketing: A Behavioural Analysis, New York: McGraw-Hill, Maidenhead.
- Chow, Chen, Yeow, & Wong, (2012). Conceptual Paper: Factors Affecting the Demand of Smartphone among Young Adult. International Journal on Social Science Economics and Art, Vol. 2(2012) No.2.
- Chow, M.M., Chen, L.H.,Yeow, J.A.,& Wong, P.W. (2012). Factor affecting the demand of smartphone among the young adults. International Journal on Social Science Economics & Art, 2(2), 44-49.
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd ed.). New York: Psychology Press.
- Ding Hooi Ting, Suet Fong Lim, Tanusina Siuly Patanmacia, Ca Gie Low, Gay Chuan Ker, (2011) "Dependency on smartphone and the impact on purchase behaviour", Young Consumers: Insight and Ideas for Responsible Marketers, Vol. 12 Iss: 3, pp.193 – 203
- Forbes magazine, Parmy Olson (Dec, 2012), 5 Eye-Opening Stats That Show The World Is Going Mobile
- Forbes magazine, Parmy Olson (Dec, 2012), 5 Eye-Opening Stats That Show The World Is Going Mobile
- Hair, J. F. Jr., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2013). *A primer on partial least squares structural equation modeling (PLS-SEM)*. SAGE Publications, Incorporated, London.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks, CA: Sage Publication.
- Hair, J.F., Black C.K., Babin B.J., & Anderson R.E., (2006). *Multivariate Data Analysis: A Global Perspective* (7th Edition), Pearson Education Inc. Newyork.
- Hair, Joseph F., Christian M. Ringle, and Marko Sarstedt (2011), PLS-SEM – Indeed a Silver Bullet, *Journal of Marketing Theory & Practice*, forthcoming.
- Harsha de Silva, Dimuthu Ratnadiwakara, & Ayesha Zainudeen (2011), Social Influence in Mobile Phone Adoption: Evidence from the Bottom of the Pyramid in Emerging Asia, USC

Annenberg School for Communication & Journalism, Volume 7, Number 3, Mobile Telephony Special Issue, 1-18

Heriyati, P. & Siek, T.P. 2011, "Effects of Word of Mouth Communication and Perceived Quality on Decision Making Moderated by Gender: Jakarta Blackberry

Jee Han, Y., Joseph, C. N., & Xavier, D. (2010). Signaling Status with Luxury Goods: The Role of Brand Promonence. *Journal of Marketing* , 74, 4.

Lange, F. A. (1925). *The History of Materialism*. New York: Harcourt, Brace, & Co.

Leo, C., Bennett, R., and Hartel, C.E.J. (2005). Cross-Cultural Differences in Consumer Decision-Making Styles. *Cross Cultural Management*, 12(3), 32-61.

Mohd Azam Osman., Abdullah Zawawi Talib., Zainal Abidin Samusi., Tan Shiang Yen., & Abdullah Sani Alwi. (2012). A study of the trend of smartphone and its usage behavior in Malaysia. *International Journal on New Computer Architectures and Their Application (UNCAA)*, 2(1), 274-285

Monroe, K.B. (2003). *Pricing: Making Profitable Decisions. Satisfaction: A Behavioural Perspective on the Consumer* (3rd ed). Boston: McGraw-Hill.

Moser, P. K., & J.D, T. (1995). *Contemporary Materialism: A Reader*. New York: Routledge.

Norazah Mohd Suki, (2013) "Students' demand for smartphones: Structural relationships of product features, brand name, product price and social influence", *Campus-Wide Information Systems*, Vol. 30 Iss: 4, pp.236 – 248

Ringle, C. M., Wende, S., & Will, A. (2005). *SmartPLS 2.0 [Software]*. Available from <http://www.smartpls.com/smartpls2>

Tim, K. (2002). *The High Price of Materialism*. Cambridge: The MIT Press.

Vitzthum, R. C. (1995). *Materialism: An Affirmative History and Definition*. New York: Prometheus Books.

Yusuf, Z. Ö., & Abdullah, K. (2003). Research Note: A Need or a Status Symbol?: Use of Cellular Telephones in Turkey. *European Journal of Communication* , 18 (2), 241-254.

Talukder, M & Quazi, A 2011, 'The impact of social influence on individuals' adoption of innovation', *Journal of Organizational Computing and Electronic Commerce*, Vol. 21, No. 2, pp. 111-135.