

# Customer Perceived Risks and the Choice of Mobile Phone Brand in Ghana

*Stephen Acheampong*

School of Business, Ghana Baptist University College, Ghana

*Collins Kankam-Kwarteng*

School of Business, Kumasi Technical University (KsTU) , Ghana

*Jacob Donkor*

School of Business, Ghana Baptist University College, Ghana

Doi:10.19044/esj.2019.v15n7p239

[URL:http://dx.doi.org/10.19044/esj.2019.v15n7p239](http://dx.doi.org/10.19044/esj.2019.v15n7p239)

---

## Abstract

Purpose – The purpose of the study is to develop, measure and empirically validate the contribution of performance risk, social risk, financial risk and psychological risk to the customer choice of mobile phone. Design/methodology/approach – Data were collected from 267 mobile phone users applying the convenience sampling method. The study finds that performance risk, social risk, financial risk, and psychological risk relate to customer choice.

Further study results demonstrate that all the predictor variables after controlling for experience and means of acquisition are statistically significant in predicting customer choice of mobile phone brand. However, performance risk showed the highest effects on customer choice. The study contributes to the development of a multi-dimensional scale for customer perceived risk and choice of mobile phone in the Ghanaian context. The study provides firms in the mobile phone industry with a deeper understanding of how the performance, financial, social and psychological factors are relevant in the development of marketing programmes in the mobile phone industry.

---

**Keywords:** Customer Perceived risks, customer choice, mobile phone brand

## INTRODUCTION

The widespread utilization of mobile phones in communication and information transfer leads to exponential improvement in mobile phone technology (Mokhlis & Yaakop, 2012; Meso, Musa & Mbarika, 2005; Bianchi & Phillips, 2005). To meet users' information needs, innovative features and applications are continuously being added to mobile phones to make them perform many more new functions (Donner, 2007; Srivastava, 2005).

Consequently, the mobile phone, which is essentially a communication device has undergone numerous transformations, making its functionalities transcending the traditional voice communication between two individuals (Kushchu, 2007; Hakoama & Hakoyama, 2011). The vast majority of empirical research in the field of perceived risks and behavior has focused on purchasing electronic gadgets, (Weber, Blais & Betz, 2002), thus in general, the empirical results of perceived risk in transactions are vital in explaining the purchase behavior of mobile phones among customers (Jarvenpaa, Tractinsky & Vitale, 2000; Van der Heijden, Verhagen & Creemers, 2003). All forms of purchases are dyadic, which implies that two parties are involved in the transaction: the buyer and the seller (Solomon, Surprenant, Czepiel & Gutman, 1985). In this context, therefore, the consumer purchase behavior is not only affected by the risk perceptions of the buying party (Kim, Ferrin & Rao, 2008), but it is also subject to perceptions of risks associated with the inability of the mobile phone to meet its expected functions (Chen & Chang, 2013).

Lowering the perceived risks associated with the purchase of mobile phones are vital keys to attracting consumers and retaining customers (Huang, Schrank, & Dubinsky, 2004; Tan & Thoen, 2002). Although there is a physical presence and even testing of the products before consumers purchase them, Harridge-March, (2006) explain that there are still perceived risks on the performance of the mobile phones they buy. The relationship between perceived risk and purchase behavior has received quite substantial attention and is explored empirically among the general public (Pavlou & Gefen, 2002). Most research today has considered risk as one construct and has explicitly been paying attention to perceived risk components, especially among consumers who purchase mobile phones (Featherman & Pavlou, 2002). Ling, Reynolds, Weung & Beatty, (2006) indicate that detailed assessments need to be made in order to thoroughly understand the perceived risks users envisage in their quest to purchase their choice of mobile phones. The introduction of new mobile phones is important for the long term success of firms, especially for technology-intensive industries (Prins & Verhoef 2007). However, the introduction of varieties of brands to the marketplace is a high-risk endeavor due to a high degree of product failure (Cooper, Edgett & Kleinschmidt, 2006) mainly due to unreceptive consumers (Hardesty & Bearden, 2004). The dimensionalities in mobile phone brands on the Ghanaian market, according to Sey (2011) requires continues researchers to appreciate consumer choice predictors. The perceived risk components of consumer behavior require a study of this nature in the Ghanaian consumers of mobile phones and the extent to which a choice of a particular brand is influenced by the perceived risk concept.

## **LITERATURE REVIEW**

### **The concept of customer perceived risks**

The concept of consumer-perceived risks has been widely dealt with in the literature and has been shown to influence consumer behavior to varying degrees and in varying contexts

(Cunningham, Gerlach, Harper & Young, 2005). Consumer behavior researchers most often define perceived risks regarding the consumer's perceptions of the uncertainty and potential adverse consequences of buying a product or service (Littler & Melanthiou, 2006). Various researchers have seen perceived risk as an important factor influencing consumers' behavior (Cunningham et al., 2005). This is because, in the business environment, criminal acts can be performed with extremely high speed, and even with physical contact (Cheung-Lee, 2006). Perceived risks arise from the uncertainty that customers face when they cannot foresee the consequences of their purchase decisions. This uncertainty regards the value of services, concerns about the reliability of the information, and related features most valued by customers (Flavia'n, 2005).

As consumers perceive risks, they expect some kind of loss (Stone & Winter, 1987). Thus perceived risk is a function of the probability of loss and importance of loss (Cunningham, 1967). Since 1960, extensive consumer research has shown that perceived risks affect consumers' behavior across different cultures (Verhage et al., 1990; Dowling & Staelin, 1994). Consumers perceive risk because they face uncertainty and potentially undesirable consequences as a result of purchases (Dowling & Staelin, 1994). Perceived risk is powerful at explaining consumers' behavior because consumers are more often motivated to avoid mistakes than to maximize utility in purchasing (Mitchell, 1999).

Consumers perceive risk because time may be lost or frustration may result where the purchases are unsuccessful (Chang & Tseng, 2013; Laroche, Bergeron & Goutaland, 2003). Previous research in countries with different levels of perceived risk shows that perceived security risk is an important predictor of purchasing mobile phones. Sathye (1999) investigates perceived risk among Australian consumers and identifies security concerns and lack of awareness as the main obstacles to purchases of mobile gadgets. Cheng (2006) also found perceived performance risk to be a significant determinant of customers' belief in the usage of mobile gadgets since customers tend to increase purchases only if they perceive that the product will work to suit their expectations.

Thus in the risk literature, perceived risk has been conceptualized as two elements: uncertainty and consequences (Lu, Hsu & Hsu, 2005; Park, Lennon, & Stoel, 2005; Dowling & Staelin, 1994). Moreover, it is recognized that in the risk literature, the sources of perceived risk, also referred to as risk

types, have received attention. Discussed sources of risk include financial risk, performance risk, physical risk, psychological risk, social risk and time risk (Park et al., 2005). A widely established and validated framework of the dimensions and sources of perceived risk in purchases of mobile gadgets, however, are still lacking. The few empirical works focusing on the dimensionality of perceived risk in transactions (Featherman & Pavlou, 2003; Garbarino & Strahilevitz, 2004) arrive at different classifications or are limited in the sense that they have been applied to particular internet applications and not to the risks associated with purchasing a particular brand of mobile gadgets.

### **Behavioral Decision Theory**

The Behavioral Decision Theory (BDT) suggests that a perceived risk contributes substantially to the decision-making process (Puto, Patton & King, 1985). Most consumers have imperfect knowledge when making purchase decisions about mobile devices (Tellis & Gaeth, 1990) and hence are hesitant to adopt the use of other electronic gadgets (Sarin, Seago & Chanvarasuth, 2003), despite the benefits associated with using, for instance, mobile phones (Runyon & Steward, 1987).

### **Risk-Taking Theory**

In that regard, the Risk-Taking Theory (RTT) suggests that consumers' adoption of new mobile devices would be a potentially high-risk situation as these new products provide unfamiliar and ambiguous stimuli (Bauer, 1960). As a result, consumers will engage in risk-reduction behavior to increase the certainty of the probable consequences of the purchase decision or reduce the amount at stake (for instance, reduce the penalties for failure) leading to Loss Aversion Theory.

### **Loss Aversion Theory**

Loss Aversion Theory (LAT) (Simpson et al., 2008) suggests that responses to losses are more extreme than responses to gains (Simpson et al., 2008). For example, consumers may postpone purchasing new mobile products as they fear that the products may not work as promised (fear of loss of money than the possible gain of owning the new product) (Simonson, 1992). Therefore, purchase postponement enables the consumers' perceived risk to be reduced to a tolerable or acceptable level (Germunden, 1985).

### **Performance Risk and customer choice**

Performance risk explains the probability of the item fails to meet the performance requirements originally intended (Fung, Hsieh, Naik & Ramadorai, 2008; McConaughy, Matthews & Fialko, 2001). Product risks

have been reported as the most frequently cited reason for not trying new brands of mobile phones, as product risk was found to have a significant impact on the frequency of purchasing newly introduced mobile phones (Forsythe & Shi, 2003). A relatively high level of product risk is expected when purchasing electronic devices, particularly for some product categories, due to shoppers' inability to extensively examine and test product attributes physically (Garbarino & Strahilevitz, 2004). This suggests that risks associated with product uncertainty are likely to negatively affect mobile device purchase intentions, at least, for some products especially unfamiliar brands (Bhatnagar, Misra & Rao, 2000).

Performance risk has to do with concerns that products and services will not perform as anticipated. Consumers' evaluation of performance risk is based on their knowledge and cognitive abilities in a certain product domain (Littler & Melanthiou, 2006). It is concerned with how well the product will perform relative to expectations. Consumers' evaluation of performance risk is based on their knowledge and cognitive abilities in a certain product domain (Littler & Melanthiou, 2006). Asymmetry in electronic gadgets information and the lack of enough time to correctly evaluate the characteristics of the product leads to decreasing the confidence of consumers. The opportunity to conduct a trial may confirm how easy it is to use the product and showcase the necessary confidence to consumers with high perceived performance risk (Ba, 2001). The product's performance is one attribute that most consumers may be uncertain about (Erdem et al., 2004) especially when it comes to high-tech products. As a result, they are likely to seek information about the firms manufacturing capabilities, technology and research (Gurhan-Canliand & Batra, 2004).

Furthermore, this uncertainty may persist even after the consumer has used the product for a certain period. This may be due to imprecise information gathered about the product during its use (Erdem et al., 2004). This risk may be alleviated with the purchase of a reputable brand. Nevertheless, the product may still not perform to its potential, and this could lead to consumer frustration. Therefore, the performance of the product is an important determinant in the purchase of new high-tech products.

### **Social Risk and customer choice**

Social risk is concerned with the possibility of attracting unfavorable attention and response from purchasing a particular product. The social status of the consumer who patronizes mobile phones may be affected because of the positive or negative perceptions of some brands by family, acquaintances or peers (Littler & Melanthiou, 2006). Consumers' attitudes towards the different methods of purchasing depend on their characteristics; those who most value

social relationships being the most reluctant to develop a positive attitude to purchase mobile phones.

Social risk deals with the negative responses from the consumer's social network (e.g., friends, peers, etc.). Most high-tech products are used in public, and most consumers would prefer to be seen with the right gadget and the right brand (Hirunyawipada & Paswan, 2006). Therefore, if the new product does not meet the expectation of his or her social network, the consumer is likely to postpone the purchase of the new product and purchase the existing product that meets the expectation of the social network.

### **Financial Risk and customer choice**

Financial risk is defined as the likelihood of suffering a monetary loss from a purchase (Sweeney et al., 1999). There are different reasons why mobile phone customers may suffer a monetary loss when shopping for their preferred choice. First, it is hard for shoppers to determine whether the price of the item purchased at a particular retailer is the lowest available, compared to others. Perception of such financial risk explains why shoppers abandon some accredited dealers (Egeln & Joseph, 2012). Second, financial losses may occur due to fraud, which is a primary financial concern among mobile phone shoppers. In addition, Caterinicchia (2005) reports on shoppers' concerns regarding financial loss if products purchased fail to perform as expected. Overall, financial risk has been negatively associated with mobile phone shopping, and is found to be a strong predictor of customers' shopping intentions (Forsythe et al. 2006) and behaviors such as, the tendency to reduce purchase frequency, reduce amount spent in shops, and frequency of searching with the intent to buy (Egeln & Joseph, 2012; Forsythe & Shi, 2006).

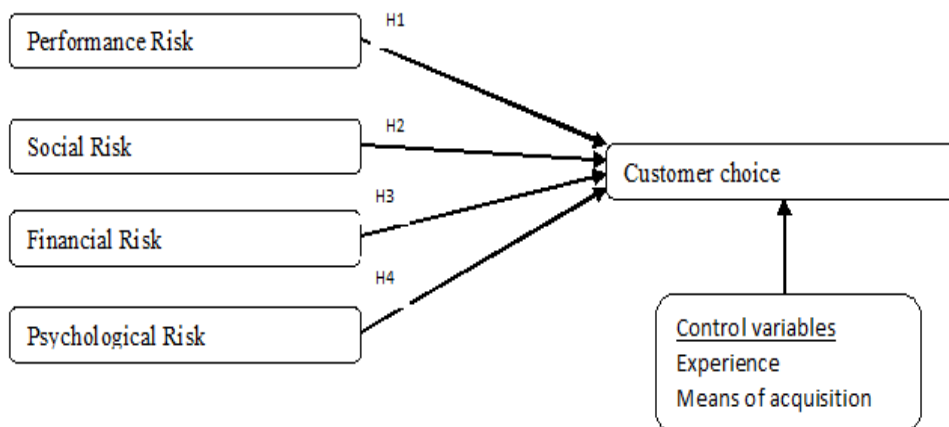
Most consumers would resist adopting the new product due to the undesirable consequences of adopting the new high-tech product (Kulviwat, Bruner II, & Al-Shuridah, 2009). The economic cost of a new product purchase depends on the consumer's stake in the purchase decision, which is in turn, determined by the importance of the buying goal and the economic value attached to that goal (Cox & Rich, 1964). The greater the economic value, the greater the financial risk is to the consumer (Schmiedt & Epstein, 2005). Moreover, because most high-tech products are expensive, the financial commitment of consumers towards these products is also substantial (Cooper, 2004). In addition, there may be other costs associated with the product; for instance, the maintenance and the repairs of the product may also be extensive (Mont, 2002) Therefore, consumers will consider the perceived financial risk when purchasing new high-tech products.

## Psychological Risks and customer choice

The psychological risk factor is defined as whether the product or service is consistent with the prospect’s sense of self-identity. Psychological risk broadly describes instances where product consumption may harm the consumer's self-esteem or perceptions of self. This risk is therefore defined as the experience of anxiety or psychological discomfort arising from anticipated post-behavioral affective reactions, such as worry and regret, from purchasing and using the product (Perugini & Bagozzi, 1999; Dholakia, 2001). The psychological risks component have been included and are explained in the following product-related dimensions: Product Complexity has been conceptualized as the extent to which the high-tech product appears difficult to use and understand (Rogers 1995). Product Innovativeness refers to the degree of change required in consumer behavior, as well as the degree of effort required to learn and use the high-tech product. Product similarity is measured regarding how much the consumer thought he/she knew about the product (Park & Lessig, 1981). Adoption difficulty refers to the effort required to learn to use and adopt a new product (Lee & O’Connor, 2003). Product Advantage is the degree to which the new product is perceived to be better than the existing products (Kohli, 1999). Purchase importance has been shown to play an important role in purchase decisions (McQuiston, 1989). Consumers under time pressure are more likely to postpone purchases than consumers under no time pressure (Dhar & Nowlis, 1999).

**Figure 1: Conceptual Framework**

The purpose of this work is to examine the motives that define the customer perceived risk in the purchase of a specific mobile phone brand. The rigorous scientific work identified several factors that make up the sub-variables defining perceived risk. The construct for the study, therefore, includes performance risk, social risk, financial risk, and psychological risk. These are shown in figure 1. Below:



## **Research hypothesis**

*H1: Performance risks have a positive effect on the consumer choice of mobile phone brand*

*H2: Social risks have a positive influence on the consumer choice of mobile phone brand*

*H3: Financial risks have a positive impact on the consumer choice of mobile phone brand*

*H4: Psychological risks have a positive impact on consumer choice of mobile phone brand*

## **RESEARCH METHODOLOGY**

The study was designed as quantitative research requiring the use of a questionnaire as a data collection instrument. A structured questionnaire with sixteen (16) measuring items of the independent variables and two (2) items as control variables were used for data collection. 300 set of the revised questionnaire was distributed to participants, and 267 were returned for data cleaning and data management. In the end, all the response from the 267 returned questionnaires were used for the data analysis. A convenient sampling technique was used to select respondents who were willing to participate in the study. The scales were measured in a 5 point Likert scale as 1 = strongly agree to 5 = strongly disagree.

### **Measurement scale of the study variables**

The development of the scale for performance risks was based on Littler and Melanthiou (2006) and had 4 items. Financial risk was measured on statements and literature search form (Egeln and Joseph, 2012; Forsythe and Shi, 2006). Also, the modified statement version was developed through comprehensive literature searched from (Perugini & Bagozzi, 1999; Dholakia, 2001) were used to develop the scale for psychological risks covering 4 items. The scale for social risk was extracted from Hirunyawipada and Paswan (2006) which contained 4 items. The dependent variable; customer choice was measured using 6-items. The control variable for the study included the period for the usage of mobile phone. This was expressed and coded as 1=less than 5years, 2=6-10years, and 3=11years plus. The means of acquiring mobile phone was operationalized as voluntary acquisition and involuntary acquisition. The expression was coded as 1=voluntary acquisition of mobile phone brand and 2=involuntary acquisition of mobile phone brand.

### **Test of Reliability**

In order to prove the internal reliability, this study has performed Cronbach's Alpha Test of Reliability. Cronbach's alpha is a reliability coefficient that indicates how well the items in a set are positively related to



one another. This test specifies whether the items pertaining to each dimension are internally consistent and whether they can be used to measure the same construct or dimension of service quality. It is computed regarding the average intercorrelations among the items measuring the concept. Reliability is calculated in such a way that it represents the reliability of the mean of the items, not the reliability of any single item for instance as shown in

According to Nunnally (1978), Cronbach's alpha should be 0.700 or above. But, some of studies 0.600 also considered acceptable (Gerrard et al., 2006). In this study, the value of Cronbach's alpha is between 0.781 and 0.863 which is greater than the standard value, 0.7. Another criteria of Cronbach's alpha for establishing the internal consistency reliability: Excellent ( $\alpha > 0.9$ ), Good ( $0.7 < \alpha < 0.9$ ), Acceptable ( $0.6 < \alpha < 0.7$ ), Poor ( $0.5 < \alpha < 0.6$ ), Unacceptable ( $\alpha < 0.5$ ) (Kline, 2000; George & Mallery, 2003). The validity and reliability test were conducted on the variables under study. The variables included performance risks 4-items, social risks 4-items, financial risks 4-items and psychological risk 4-items. The Cronbach's alpha was shown as; performance risks=.650, social risks=.801, financial risks=.822, psychological risk=.907 and Customer choice .781. Thus it can be concluded that the measures used in this study are valid and highly reliable.

**Table I: Reliability test**

IND. VAR	N of Items	Cronbach's Alpha
PERFRISK	4	.650
SOCRISK	4	.801
FINRISK	4	.822
PSYHCORISK	4	.907
CUSTOMER CHOICE	6	.781

### **Descriptive and Correlation Analysis**

Descriptive and correlation statistics focusing on the independent variables, dependent variable, and the control variables were performed. Table II and Table III exhibit the descriptive statistics and the correlation analysis respectively. Table II indicates that the PERFRISK is widely the dominant risks associated with the choice of mobile phone brand among the participants of the study. The mean score of shows that the influence of PERFRISK (mean=4.1027), SOCRISK (mean=4.0111), FINRISK (mean=3.6722), PSYCHORISK (3.6456) and customer choice (mean=4.7171).

Meanwhile, an experience which indicates the period participants have been using mobile phone recorded a mean= 8.04. The implication is that participants have been using a mobile phone for more than 8years. Means of acquiring mobile phone (mean=2.04) explains whether participants choice of mobile phones is based on voluntary or involuntary usage of a particular brand.

The recorded score indicating that majority of the respondents' voluntarily select a mobile phone brand of their choice

**Table III: Pearson Correlation Co-efficient of the dependent, independent and control variables**

		Customer choice	Experience	Means of acquisition	PEFRISK K	SOCRISK K	FINRISK K	PSYCHORISK SK
Pearson Correlation	Customer choice	1.000						
	Experience	.007	1.000					
	Means of acquisition	.011	.073	1.000				
	PEFRISK	.764	-.089	.021	1.000			
	SOCRISK	.443	-.168	-.023	.703	1.000		
	FINRISK	.375	-.151	-.021	.683	.753	1.000	
	PSYCHORISK	.538	-.184	-.060	.692	.747	.705	1.000

Pearson correlation test was conducted to know the degree of relationship between the dependent variable of customer choice of mobile phone brand with the independent variables of PERFRISK, SOCRISK, FINRISK and PSYCHORISK and the control variables of experience in using a mobile phone and the means of acquiring a mobile phone. The results of the correlation between these variables are shown in TABLE II. As it is indicated in the table, there is a significant correlation between all variables with the dependent variables of customer choice intention of mobile phone brand. The correlation coefficient (r), which shows the different relationship between variables, like strong, moderate and weak relation as well as also show that there is no relationship between variables because they do not correlate to each other. In this case, the value of the relationship between PERFRISK, SOCRISK, FINRISK, and PSYCHORISK are .764, .443, .375, .538 respectively and they are strongly correlated with the dependent variable of customer choice. Whereas the control variables of experience in using mobile .007 and means of acquiring mobile phone .011 found not correlated with the dependent variable of customer choice of mobile phone brand. The direction and strength of these associations of the independent variables indicate preliminary support for the conceptual framework of the study.

### Evaluating the model

Before estimating any model, it is a must to check the validity of the model properly. To this respect, as necessary, tests for multicollinearity were made. Test for multicollinearity is done using collinearity statistics of Variance Inflation Factor (VIF) and Tolerance levels. As a rule of thumb, if the VIF of a variable exceeds 10 and the Tolerance level is less than .10, there is a serious multicollinearity problem. But the mean VIF result of PERFRISK recorded 1.048, SOCRISK =3.148, FINRISK= 2.744 and PSYHCORISK= 2.788. Tolerance levels of the independent variables also indicated that there

was no multicollinearity. PERFRISK recorded .411, SOCRISK = .318, FINRISK= .364 and PSYCHORISK= .359. Therefore, there may not be a problem of multicollinearity in the data. To check whether the standardized residual case is having any undue influence on the results for our model as a whole, Cook's Distance was also tested. According to Tabachnick and Fidell (2007), cases of Cook's Distance with values larger than 1 are a potential problem for the model. The Cook's Distance as shown by the results in the residual statistics indicated  $MIN=.000$  and  $MAX =.175$

**TABLE IV: Coefficients on factors that affect choice of mobile and collinearity statistics**

	Model	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.878	.111		7.925	.000		
	Experience	.004	.034	.007	.112	.911	.995	1.005
	Means of acquiring	.000	.041	.000	-.008	.993	.995	1.005
2	(Constant)	1.399	.081		17.264	.000		
	Experience	-.027	.021	-.049	-1.306	.193	.954	1.048
	Means of acquisition	.012	.025	.018	.495	.621	.985	1.015
	PEFRISK	.115	.007	.910	15.821	.000	.411	2.431
	SOCRISK	.025	.012	.133	2.035	.043	.318	3.148
	FINRISK	.056	.011	.300	4.913	.000	.364	2.744
	PSYCHORISK	.040	.011	.227	3.686	.000	.359	2.788

A standard hierarchical multiple regression was used to evaluate the contribution of consumer perceived risk; PEFRISK, SOCRISK, FINRISK, and PSYCHORISK towards customer choice of mobile phone brand after controlling for experience in the use of mobile phone and the means of acquiring a mobile phone. Experiences in the use of mobile phone and the means of acquiring a mobile phone brand as control variables were entered into step 1, explaining 0.12% of the variance in the customer choice of mobile phone brand. Step 2 was entered with all the independent variables performance risk, social risk, financial risk, and psychological risk. The total variance explained by the model was 64.6 %,  $F(6,260) = 79.045$ ,  $P < .001$ . Experience in the use of mobile phone and the means of acquiring mobile as control measures had less than 1% additional contribution of the variance in customer choice of mobile phone brand. This is because the R square for the control variables recorded .012. After controlling for experience and means of acquiring mobile phone brand, R squared change remained at .646, indicating that the predictors of the model at 64.8%,  $F$  change (4, 260) = 118,559,  $P < .001$  are without the control variables.

Performance risks (PEFRISK) weighted  $\beta = .910$  ( $t = 15.821$ ,  $p < .000$ ) was positively significant at 1%, which indicated that respondents were more

likely to be influenced by performance risks in their decision to choose a particular mobile phone brand. As a result, *hypothesis 1* is accepted.

Social risks (SOCRISK) weighted  $\beta = .133$ , ( $t=2.035$ ),  $p<.043$  was positively significant at 5%. The result explains that the customers were more likely to be influenced by the social risks regarding the choice of the brand of mobile phone. The hypotheses which state that social risks impact on customer choice of particular mobile phone brand. The result indicates that *hypothesis 2* is accepted.

In addition, FINRISK weighted  $\beta=.300$ , ( $t=4.913$ ),  $p<.000$  was positively significant at 1%. It can be replicated; therefore, *hypothesis 3* is accepted. In the context of customer choice of mobile phone, the choice pattern is identified predominantly by consumer perceived risks particularly FINRISK in purchasing a mobile phone.

PSYCHORISK as one of the construct for consumer perceived risk weighted  $\beta=.227$ , ( $t=3.686$ ,  $p<.000$ ) was positively significant at 1%. The result suggests that psychological risk plays an important role in enhancing the choice dimensions of mobile phone brand. Thus, it can be concluded that *hypothesis 4* is accepted. PSYCHORISK has, therefore, demonstrated that it has a significant statistical relationship with customer choice of specific mobile phone brand.

It however important to note that all the control variable; experience in the use of mobile phone  $\beta =-.049$ , ( $t=-1.306$ ,  $p=.193$ ) at significance level 5% and the means of acquiring mobile phone  $\beta =.495$ , ( $t=.621$ ,  $p<.985$ ) at 5% showed not to be statistically significant in the model defining the influence of customer perceived risk in the choice of a specific mobile phone brand.

**TABLE V: Model Summary<sup>c</sup>**

Mode	R	Adjusted Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
					F Change	df1	df2	
1	.007 <sup>a</sup>	.012	.31759	.012	.006	2	264	.994
2	.804 <sup>b</sup>	.638	.19044	.648	118.559	4	260	.000

**a. Predictors: (Constant), Means of acquisition, Experience**

**b. Predictors: (Constant), Means of acquisition, Experience , PEFRISK, FINRISK, PSYCHORISK, SOCRISK**

**c. Dependent Variable: customer choice of mobile phone**

**TABLE VI ANOVA<sup>c</sup>**

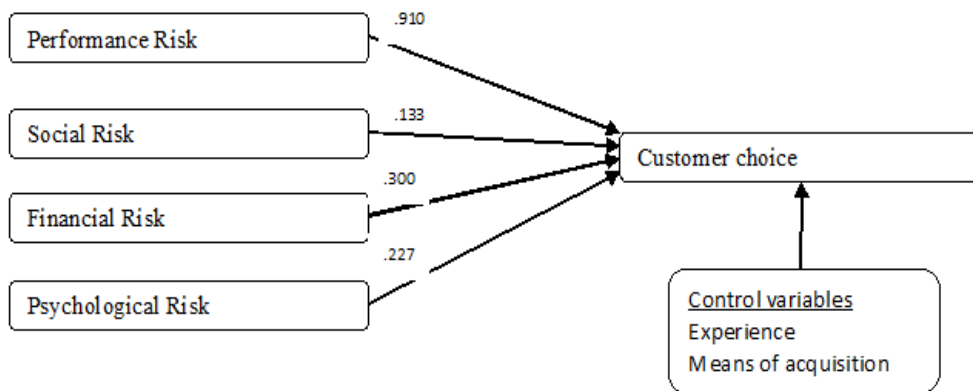
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.001	2	.001	.006	.994 <sup>a</sup>
	Residual	26.628	264	.101		
	Total	26.629	266			
2	Regression	17.200	6	2.867	79.045	.000 <sup>b</sup>
	Residual	9.429	260	.036		
	Total	26.629	266			

**a. Predictors: (Constant), Means of acquisition, Experience**

**b. Predictors: (Constant), Means of acquisition, Experience, PEFRISK, FINRISK, PSYCHORISK, SOCRISK**

**c. Dependent Variable: customer choice of mobile phone**

**Conceptual framework after analysis**



**Discussion of results and implication**

The influence of risk perception on consumer attitudes and behavior may be different in situations that are dominated by different types of risks (Cunningham et al., 2005). Previous research suggested perceived risk as an important factor influencing consumer purchasing behavior of mobile phones (Cunningham et al., 2005; Pavlou, 2003; Schlosser, 2006). The study findings provide a significant contribution of customer perceive to the choice of mobile phone brand. All the components of the customer perceive risk constructs; PEFRISK, SOCRISK, FINRISK, and PSYCHORISK were found to have a positive influence on the choice of mobile brand. Significantly the findings corroborate previous studies (Cunningham et al., 2005) on the influence customer perceive risk on the choice of electronic gadgets. Unlike previous research on the choice of mobile which predominantly analyses credibility, security and extended life span as the predicting variables (Mukherjee & Nath, 2003; Pikkarainen, 2004) for purchase intentions of mobile phones, this study has added the construct development of perceived risks by critically evaluating

PERFRISK, SOCRISK, FINRISK, and PSYCHORISK. Significantly, management researcher cannot underestimate the contribution of the PSFP IN the development of a standard construct for customer perceived risks in the purchase of mobile phones. It is important to note that the study contributes to both theoretical development and managerial appreciation of perceived risks in consumer behavior. Understanding the consumer's decision to purchase mobile devices under risky conditions is a key component of product success and is of enormous theoretical importance (Grewal, Gotlieb & Marmorstein, 1994). One factor that has constantly been identified as a critical determinant of consumer willingness to purchase mobile devices is the perceived risks associated with those mobile devices. Theoretically, the study adds to the consumer behavior theory regarding the dimensionalities of consumer choice patterns. Managerial appreciation of the critical factors the influence consumer choice intention is important in marketing operations. The design of marketing communication messages and the targets set for marketing programmes can be extracted from the findings of this study.

### **Limitations and suggestions for future studies**

The rigorous nature of scientific research makes it difficult for a study of this to be problems free. Availability of detailed literature was a concern for this study as methodological problems were noted. The researchers relied on convenience sampling techniques based on participant willingness to participate. Also, the study was cross-sectional research, making it difficult for an evaluation of the choice of mobile phone and how the perceived risks continue to influence the users of the device. It is therefore expected that future researchers study the subject using a longitudinal research method to evaluate the outcome of a particular perceived risk component on the use of the brand chosen. Management researcher has also recommended that for generalization a study of this nature should include a larger sample and participants from the diverse background. Based on this assertion, future researchers can use a larger sample size and also replicate the study in other developing countries to provide a generalization of the influence of perceived risks on customer choice of mobile phone brand.

### **References:**

1. Aladwani, A.M. (2001). "Online banking: a field study of drivers, development challenges and expectations", *International Journal of Information Management*, 21 (3), 213-25.
2. Ba, S. (2001). "Establishing online trust through a community responsibility system", *Decision Supporting Systems*, 31(3), 323-36.

3. Bauer R. A., (1960). "Consumer Behavior as Risk Taking," *Dynamic Marketing for a Changing World*, ed. Robert S. Hancock, Chicago: American Marketing Association, 389-98.
4. Bearden W. O. & Shimp T.A. (1982). "The use of Extrinsic Cues to Facilitate Product Adoption," *Journal of Marketing Research*, 19 (2), 229-39.
5. Bhatnagar, A., Misra, S., & Rao, H. R. (2000). On risk, convenience, and Internet shopping behavior. *Communications of the ACM*, 43(11), 98-105.
6. Bianchi, A., & Phillips, J. G. (2005). Psychological predictors of problem mobile phone use. *CyberPsychology & Behavior*, 8(1), 39-51.
7. Chang, E. C., & Tseng, Y. F. (2013). Research note: E-store image, perceived value and perceived risk. *Journal of business research*, 66(7), 864-870.
8. Cheng P.V. (2006). "The validity of an extended technology acceptance model (TAM) for predicting intranet/portal usage", Master thesis, University of North Carolina, Chapel Hill, NC.
9. Chen, Y. S., & Chang, C. H. (2013). Greenwash and green trust: The mediation effects of green consumer confusion and green perceived risk. *Journal of Business Ethics*, 114(3), 489-500.
10. Cheung C. & Lee, N.K., (2006). "Electronic commerce: reality bytes", *Supply Management*, vol. 3, no. 8. 32-34.
11. Coghill, A. (2001). Perceived risk in shopping: A test of a measurement instrument, *Americas Conference on Information Systems*.799-803.
12. Comer D.F. & Wikle S.U., (2008). Perceived risk and consumer decision making-The case of telephone shopping, *Journal of Marketing Research*, Vol. 1, No. 4.32-39.
13. Conchar M.P., Zinkhan G.M., Peters C. & Olavarrieta S. (2004). An integrated framework for the conceptualization of consumers' perceived-risk processing. *Academy ofMarketing Science* 32 (4), 418-436.
14. Cooper, R. G., Edgett, S. J., & Kleinschmidt, E. J. (2006). *Portfolio Management for New Product Development*.
15. Cooper, A. (2004). *The inmates are running the asylum: [Why high-tech products drive us crazy and how to restore the sanity]*. Indianapolis: Sams.
16. Cunningham, L. F., Gerlach, J. H., Harper, M. D., & Young, C. E. (2005). Perceived risk and the consumer buying process: Internet airline reservations. *International Journal of Service Industry Management*, 16(4), 357-372.

17. Davis M.Y. & Schoorman, R.T. (1995). "A framework for analyzing the potential benefits of internet marketing", *Journal of Electronic Commerce Research*, vol. 2, no. 4. 157-163.
18. Donner, J. (2007). The rules of beeping: exchanging messages via intentional "missed calls" on mobile phones. *Journal of computer-mediated communication*, 13(1), 1-22.
19. Dowling G.R. & Staelin R. (1994). A model of perceived risk and intended risk handling activity. *Journal of Consumer Research*, 21(1), 119-134.
20. Feagin, J., Orum, A. & Sjoberg, G. (EDs). (1991). A case for case study. NC: University of North Carolina Press.
21. Featherman, M.S. & Pavlou, P.A. (2002), "Predicting E-services Adoption: A Perceived Risk Facets Perspective", Proceedings of the Eighth American Conference on Information Systems (AMCIS), Dallas. 1034-1046.
22. Featherman M.S. & Pavlou P.A. (2003). Predicting e-services adoption: a perceived risk facets perspective. *International Journal of Human-Computer Studies*, 59, 451-474.
23. Flavia'n, C., Guinaliu, M. & Torres, E. (2006), "How bricks-and-mortar attributes affect online banking adoption", *International Journal of Bank Marketing*, 24(6), 406-23.
24. Fung, W., Hsieh, D. A., Naik, N. Y., & Ramadorai, T. (2008). Hedge funds: Performance, risk, and capital formation. *The Journal of Finance*, 63(4), 1777-1803.
25. Garbarino, S. S., & Strahilevitz, Z. (2005). Web-based shopping: consumers' attitudes towards online shopping in new zealand. *Journal of Electronic Commerce Research*, 6(2).
26. Gefen, D., Karahanna E. & Straub, D.W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly* 27(1), 51-90.
27. Germunden, H. G. (1985). "Perceived Risk and Information Search: A Systematic Meta-Analysis of the Empirical Evidence," *International Journal of Research in Marketing*, 2, 79-100.
28. Grewal D., Gotlieb J., & Marmorstein, H. (1994). "The Moderating Effects of Message framing and Source Credibility on the Price-perceived Risk Relationship," *Journal of Consumer Research*, 21 (1), 145-53.
29. Hakoama, J. & Hakoyama, R.G. (2011). The analytics of uncertainty and information: an expository survey, *Journal of Economic Literature*, vol. 17, no. 4. 1375-1421.
30. Hardesty, D. M., & Bearden, W. O. (2004). The use of expert judges in scale development: Implications for improving face validity of



- measures of unobservable constructs. *Journal of Business Research*, 57(2), 98-107.
31. Harridge-March, S. (2006). Can the building of trust overcome consumer perceived risk online?. *Marketing intelligence & planning*, 24(7), 746-761.
  32. Howcroft, B., Hamilton, R. & Hewer, P. (2002), “Consumer attitude and the usage and adoption of home-based banking in the United Kingdom”, *International Journal of Bank Marketing*, 20(3),111-21.
  33. Jarvenpaa, S.L., Tractinsky, N & Vitale, M. (2000), “Consumer Trust in an Internet store”, *Information Technology and Management*, vol. 1, no 1. 45-71.
  34. Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision support systems*, 44(2), 544-564.
  35. Kulviwat, S., Bruner II, G. C., & Al-Shuridah, O. (2009). The role of social influence on adoption of high tech innovations: The moderating effect of public/private consumption. *Journal of Business Research*, 62(7), 706-712.
  36. Kushchu, D. (2007). “Towards a Generic Model of Trust for Electronic Commerce”, *International Journal of Electronic Commerce*, vol. 5, nr. 2. 61-74.
  37. Laroche, M., Bergeron, J., & Goutaland, C. (2003). How intangibility affects perceived risk: the moderating role of knowledge and involvement. *Journal of services marketing*, 17(2), 122-140.
  38. Ling, M.A. Reynolds, K.E. Weung, S. & Beatty, S.E. (2006). The product-specific nature of impulse buying tendency. *Journal of Business Research* 56.505-511.
  39. Littler, D. & Melanthiou, D. (2006). “Consumer perceptions of risk and uncertainty and the implications for behaviour towards innovative retail services: the case of internet banking”, *Journal of Retailing and Consumer Services*,13 (6),431-43.
  40. Lu, H. P., Hsu, C. L., & Hsu, H. Y. (2005). An empirical study of the effect of perceived risk upon intention to use online applications. *Information Management & Computer Security*, 13(2), 106-120.
  41. McConaughy, D. L., Matthews, C. H., & Fialko, A. S. (2001). Founding family controlled firms: Performance, risk, and value. *Journal of small business management*, 39(1), 31-49.

42. Meso, P., Musa, P., & Mbarika, V. (2005). Towards a model of consumer use of mobile information and communication technology in LDCs: the case of sub-Saharan Africa. *Information Systems Journal*, 15(2), 119-146.
43. Mitchell, V. (1999). Consumer perceived risk: Conceptualisations and models, *European Journal of Marketing*, Vol. 33, No. 1/2.163-195.
44. Mokhlis, S., & Yaakop, A. Y. (2012). Consumer choice criteria in mobile phone selection: An investigation of Malaysian university students. *International Review of Social Sciences and Humanities*, 2(2), 203-212.
45. Mont, O. K. (2002). Clarifying the concept of product–service system. *Journal of cleaner production*, 10(3), 237-245.
46. Mukherjee, A. & Nath, P. (2003). “A model of trust in online relationship banking” *International Journal of Bank Marketing*, Vol. 21 No. 1. 5-15.
47. Park, J., Lennon, S. J., & Stoel, L. (2005). On-line product presentation: Effects on mood, perceived risk, and purchase intention. *Psychology & Marketing*, 22(9), 695-719.
48. Pavlou, P.A. & Gefen, D. (2002). “Building effective online marketplaces with institution-based trust”, Proceedings of the Twenty-Third International Conference on Information Systems (ICIS), Barcelona. 667-675.
49. Pavlou, P.A. (2003). “Consumer Acceptance of Electronic Commerce: Integrating Trust and Risk with the Technology Acceptance Model”, *International Journal of Electronic Commerce*, vol. 7, no. 3. 69-103.
50. Pikkariainen, J.A. (2004). “A Paradigm for Developing Better Measures of Marketing Constructs”, *Journal of Marketing Research*, 1979, vol. 16, no. 1.64-73.
51. Prins R., & Verhoef P.C. (2007). "Marketing Communication Drivers of Adoption Timing of a New E-Service among Existing Customers," *Journal of Marketing*, 71 (April), 169-83.
52. Puto C. P., Patton W.E. III, & King R.H. (1985). "Risk Handling Strategies in Industrial Vendor Selection Decisions," *Journal of Marketing*, 49 (1), 89-98.
53. Rebello, P. (2010). Trust in inter-organizational exchanges: a case study in business to business electronic commerce. *Decision Support Systems* 39(3), 525-544.
54. Rice D.M. & Katz S.B. (2003). Not So Different After All: A Cross-Discipline View of Trust. *Academy of Management Review* 23(3), 393-404.

55. Runyon L. & Steward H.B. (1987). Perceived risk and mail order shopping for apparel, *Journal of Consumer Studies and Home Economics*, Vol. 17.377-398
56. Sarin, S., Sego T., & Chanvarasuth N. (2003) "Strategic Use Of Bundling For Reducing Consumers' Perceived Risk Associated With The Purchase Of New High-Tech Products," *Journal of Marketing Theory and Practice*, 11 (3), 71.
57. Sathye, M. (1999), "Adoption of internet banking by Australian consumers: an empirical investigation", *International Journal of Bank Marketing*,7(7),324-34.
58. Schlosser R.N. (2006). Transference as a means of building trust in World Wide Web sites, *International Conference on Information Systems*.459-464.
59. Schnietz, K. E., & Epstein, M. J. (2005). Exploring the financial value of a reputation for corporate social responsibility during a crisis. *Corporate reputation review*, 7(4), 327-345.
60. Sey, A. (2011). 'We use it different, different': Making sense of trends in mobile phone use in Ghana. *New Media & Society*, 13(3), 375-390.
61. Simonson, I. (1992). "The Influence of Anticipating Regret and Responsibility on Purchase Decisions," *Journal of Consumer Research*, 19 (1), 105-18.
62. Simpson, P.M., Siguaw J.A., & Cadogan J.W. (2008). "Understanding the Consumer Propensity to Observe," *European Journal of Marketing*, 42 (1/2), 196-221.
63. Solomon, M. R., Surprenant, C., Czepiel, J. A., & Gutman, E. G. (1985). A role theory perspective on dyadic interactions: the service encounter. *The Journal of Marketing*, 99-111.
64. Srivastava, L. (2005). Mobile phones and the evolution of social behaviour. *Behaviour & information technology*, 24(2), 111-129.
65. Stone, R. N. & Winter, F. W. (1987). Risk: Is it still uncertainty times consequences? *Proceedings of the American Marketing Association*.261-265.
66. Tan, Y-H & Thoen, W. (2002). "Formal aspects of a generic model of trust for electronic commerce", *Decision Support Systems*, 33. 233-246.
67. Tellis G. J. & Gaeth G.J. (1990). "Best Value, Price-Seeking and Price Aversion: The Impact of Information and Learning on Consumer Choices," *Journal of Marketing*, 54 (2), 34-45.
68. Van der Heijden, H., Verhagen, T. & Creemers, M. (2003). "Understanding online purchase intentions: contributions from

- technology and trust perspectives”, *European Journal of Information Systems*, 12. 41-48.
69. Verhage, B. J., Yavas, U. & G. T. Green (1990). Perceived risk: A cross-cultural phenomenon? *International Journal of Research in Marketing*, Vol. 7, No. 4.297-303.
70. Walsh R. & White, C.L. (2006). Mobile phone use as part of young people’s consumption styles, *Journal of Consumer Policy*, vol. 26, no. 4. 442-464.
71. Weber, E. U., Blais, A. R., & Betz, N. E. (2002). A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *Journal of behavioral decision making*, 15(4), 263-290.