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Mediating Effect of Consumer Knowledge on the Relationship between Consumer Attitude and Purchase Intention of Mobile Phone Counterfeits in Kenya

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Abstract:

To understand the increasing demand for counterfeits, this study sought to investigate consumer attitude towards purchase intention for counterfeit mobile phones in Kenya and the mediating effect of consumer knowledge on the relation between attitude and purchase intention. Specifically the study sought to investigate the effect of consumer attitude on purchase intention and determine the impact of consumer knowledge on the relationship between consumer attitude towards counterfeits and purchase intentions of mobile phone counterfeits. The study applied descriptive research design and examined how consumer attitude affects consumer purchase intentions and how consumer product knowledge mediates this relationship in the context of counterfeit mobile phones. The target population was drawn from young and middle generations within Nairobi County with a sample size of 500 persons. The study used a well-structured questionnaire with a 5 point Likert scale to collect data and used Cronbach's alpha to test for its validity and liability. Data was analysed using descriptive statistics and inferential statistics (correlation and regression) analysis in the Statistical Package for Social Sciences (SPSS) to determine the relationship between the independent variables and dependant variable. The results showed that consumer attitude significantly influenced purchase intention ($r^2 = 0.210, p < 0.05$) and the consumer knowledge positively and significantly mediates the relationship between consumer attitude and consumer purchase intention of mobile phone counterfeits ($r^2 = 0.217, p < 0.05$). This therefore implies that consumer attitude and consumer knowledge are key to influencing the purchase intention of mobile phone counterfeits among the young and middle aged generations in Nairobi County.

Keywords: Attitude, consumer knowledge and purchase intention, counterfeits

1. Introduction

Counterfeiting is the act of producing or selling a product containing an intentional and calculated reproduction of a genuine trademark (McCarthy, 2004). According to Wilcox *et al.*, (2009), counterfeit goods are illegal, low-priced and often lower-quality replicas of products that typically possess high brand value. Product counterfeiting is a global issue that causes significant economic and social problems (Gilgoff, 2004). Counterfeiting is increasing at a faster pace than ever before and is developing into a significant global economic problem (Bian *et al.*, 2016), particularly in the luxury goods market (Bian & Veloutsou, 2007; Commuri, 2009).

In Kenya, the Kenya Association of Manufacturers (2008) estimated that counterfeits penetration ranges up to 40% for some items. The association claimed that counterfeits costed Kenyan Small and Medium Enterprises (SMEs) 50 billion shillings (\$650 million) and the government 19 billion shillings (\$250 million) in taxes in 2008 with the most counterfeited products being dry primary cells Ball Point Pens, cosmetics, pharmaceutical products, toothpaste products, some brands of cooking oils, mobile phones, electronic equipment, juices and detergents (GOK, 2010).

An attitude is defined as "a learned predisposition to behave in a consistently favourable or unfavourable manner with respect to a given object" (Schiffman, Kanuk, & Wisenblit, 2010). Yoo & Lee (2009) says that an attitude can be used to predict an individual's intention of doing a specific behaviour (e.g., buying a product) and therefore, a consumer who has positive attitudes toward counterfeit products will be willing to purchase such counterfeit products and vice versa. Wilcox *et al.*, (2009) reports that consumers' preferences for a counterfeit brand and the subsequent negative change in their

preferences for the real brand are greater when their brand attitudes serve a social-adjustive rather than a value-expressive function.

The study therefore investigates the influence of consumer attitude towards purchase intention of mobile phones counterfeits and the mediating effect of consumer knowledge on the relation between consumer attitude and purchase intention among young and middle aged generations in Kenya

2. Literature Review

2.1. Counterfeits

Counterfeits are reproductions of a trademarked brand (Cordell et al., 1996), which are closely similar or identical to genuine articles. This includes packaging, labelling and trademarks, to intentionally pass off as the original product (Kay, 1990; Ang et al., 2001; Chow, 2000). Lai and Zaichkowsky (1999) stated that counterfeiting and piracy are the same since they are both the reproduction of identical copies of authentic products.

Research has identified two types of consumers of counterfeit products. The first is a victim, who unknowingly and unintentionally purchases counterfeit goods due to them being so closely like the genuine article (Grossman and Shapiro, 1988; Bloch et al., 1993; Mitchell and Papavassiliou, 1997; Tom et al., 1998). However, the second is a willing participant or consumer of counterfeit products, wherein they sought out counterfeit products even when they knew that the products were illegal (Bloch et al., 1993; Cordell et al., 1996; Prendergast et al., 2002). This would include where counterfeiters use the so-called bait and-switch strategy where the original image and description of a product are displayed on the website, yet an imitation is delivered (Mavlanova and Benbunan-Fich 2011).

Counterfeit brands are commonly regarded as those bearing a trade mark that "is identical to, or indistinguishable from, a trade mark registered to another party and infringes on the rights of the holder of the trade mark" (Bian & Veloutsou, 2007, p. 211). Price is often the main method for consumers to identify counterfeit products and the main motivator for buyers to buy pirated products (Cordell, Wongtada, & Kieschnick, 1996). The price of a pirated product is normally only a fraction of the price of the genuine product. Six main types of counterfeiting have been identified in previous studies (e.g., Key, 1990; Phau & Prendergast, 1998; Spink & Moyer, 2011)

2.2. Purchase Intention

A buyer's attitude and valuation and exterior components build buyer's purchase intention, and is a vital reason to forecast buyer conduct (Fishbein and Ajzen, 1975). Purchase intention can amount the chances of a buyer to purchase a product, and the greater the purchase intention, the larger a buyer's intention to purchase merchandise (Dodds et al. 1991; Schiffman and Kanuk, 2000). In recent years, many studies have successfully applied the theory of planned behavior (TPB) for predicting local food choice behavior (e.g., Rainbolt, Onozaka, & McFadden, 2012; Robinson & Smith, 2002). The TPB was also verified as a statistically acceptable model for explaining consumer behaviors regarding sustainable food (Han & Hansen, 2012). According Belch and Belch (2011), previous consuming experience is an important factor that influences several steps in the consumer decision-making process such as information search, attitudes formation, evaluation of alternatives, and ultimate purchase intention and purchase

2.3. Attitude

An attitude is defined as "a learned predisposition to behave in a consistently favourable or unfavourable manner with respect to a given object" (Schiffman, Kanuk, & Wisenblit, 2010). Petty, Wegener, and Fabriger (1997) argued that an attitude is the way an individual thinks, feels, and acts toward some aspect of his or her environment, including a brand, product, retail store or an offer. Yoo & Lee, 2009 says an attitude can be used to predict an individual's intention of doing a specific behaviour (e.g., buying a product) and therefore, a consumer who has positive attitudes toward counterfeit products will be willing to purchase such counterfeit products and vice versa.

Wilcox et al, 2009 reports that consumers' preferences for a counterfeit brand and the subsequent negative change in their preferences for the real brand are greater when their brand attitudes serve a social-adjustive rather than a value-expressive function. Katz, 1960 says that when consumers have a social-adjustive attitude toward a product, they are motivated to consume it to gain approval in social situations. Snyder & De Bono, 1985 says that consumers who hold a value expressive attitude toward a product are motivated to consume it as a form of self-expression.

According to Fishbein and Ajzen (1975), attitude directly impacts intention, subsequently influencing behavior. This indirect linkage between attitude and behavior has been validated and demonstrated many times including recently, Vitell and Muncy (1992) examined how personal attitudes influence ethical decision making.

2.4. Consumer Knowledge

Consumer product knowledge has been recognised as a characteristic in consumer research that influences all phases in the decision process (Bettman and Park, 1980). Consumers with various levels of product knowledge differ in their perceptions of product attributes (Laroche, Bergeron and Goutaland 2003; Baker, Hunt and Scribner 2002; Blair and Innis 1996). Marks and Olson (1981) propose that consumers with higher levels of product knowledge have better developed and

more complex schemata, with well-formulated decision criteria while, Kempf and Smith (1998) suggest that consumers with higher levels of product knowledge are more diagnostic and better informed than those who have lower levels of product knowledge. Therefore, the higher the level of product knowledge a consumer possesses, the less chance there is that he/she will generate evaluation bias such that consumers with higher levels of product knowledge are more likely to be able to evaluate products more accurately due to higher cognitive capacity and as a result may have less favourable perceptions of counterfeit products

3. Methodology

3.1. Research Design

The study adopted descriptive survey research design and employed cross sectional/snap shot survey method using self-administered questionnaire as the main data collection instrument to explore the factors that inform consumer attitudes towards mobile phone counterfeits. The design was selected for this study because it provides numeric descriptions of the population and describes events as they are, as they were or as they will be (Oso & Onen, 2009). The research was quantitative in nature and gathered information on perception in a questionnaire with Likert type questions as agreed by Creswell (2009). The quantitative nature of this study enabled testing theories by examining the relationship between variables measured objectively by the questionnaire through empirical assessments and numerical measurement.

3.2. Target Population

The study assessed the effect of materialism, moral intensity, subjective norm and value consciousness on attitudes towards mobile phone counterfeits by limiting the criterion of age to those between the ages of 20 and 50. Natal Jamal et al., (2012) reported that when asking individuals over the age of 50 about counterfeits and piracy, they are likely to be doubtful and may not have knowledge about the subject. Some research has examined the association between counterfeit purchasing and such demographic variables as sex (Kwong et al., 2003) and age groups (Cheung and Prendergast, 2006). Age has been found to account for 6-14% of the variance in the relationship (Astray, 2011). Segmentation by age is operationalised by the various generations that have existed over the last few decades. McCrindle and Wolfinger, 2011 define a generation as a cohort of people born within a similar span of time (15 years at the upper end) who share a comparable age and life stage and who were shaped by a particular span of time (events, trends and developments). By this criterion this study concentrated on the Baby Boomers (born 1946 to 1965), Generation X (born 1965 to 1977) and Generation Y (born 1977 to 1998). These cohorts were selected for this study because they represent the largest adult consumer groups at present, ranging in age from 18 to 69 years.

3.3. Sample and Sampling Technique

Sampling is an element of data collection, defined by Bryman and Bell (2007) as the fragment or section of the population that is selected for the research process. Probability sampling was used as it's the most appropriate in quantitative research since respondents are selected randomly; giving researchers an heterogeneous sample more representative than a non-random sample and enabling generalization to the population as reported by Bryman & Bell (2011). Sampling was among university students and graduates in the three cohorts using convenient random sampling. The university population was considered to be fit for this study, given the type of the research. The majority of university students lie into age group of 18-50 years which is consistent with the target population. Furthermore as reported by Stayman and Brown (1992), students are always found lacking in income required to buy luxury mobiles, tend to resort to low cost counterfeits to gain benefits associated with big brands and are considered relatively homogeneous in their behaviours and attitudes. These characteristics on top of the fact that since they are relatively well educated their responses are likely to mirror the trend in the society and enable generalisation possible. This therefore made the students a suitable population for study.

3.4. Sample Size

The sample size of the study was 500 respondents spread across the baby boomers, generation X and generation Y. This elicited for representativeness, efficiency, flexibility and accuracy of data. Generational theorists argue that adopting generational approach yields richer information than segmenting consumers using other demographic segmentation variables like chronological age and life stage because generational cohort analysis acknowledges the subjective historical influences of time on human behaviour (Mannhiem 1952; Schewe, Meredith, and Noble 2000; Schewe and Noble 2000).

3.5. Data Collection Instrument

A survey questionnaire designed using a three-step process was used in this study. First, literature on consumer behaviour was extensively reviewed for the manifest variables. Secondly, the questionnaire items were refined through a series of discussions with two senior marketing managers of a prominent mobile phone company and a number of experienced academics in the field of consumer behaviour. Finally, the survey questionnaire was subjected to extensive pre-testing and refinement based on a pilot study of 45 mobile phone users. Feedback from this pilot study indicated that some questions were ambiguous, difficult to understand, or irrelevant for mobile phone sector. This pilot study also served as a practical exercise for

interviewers. The final questionnaire contained a total of 60 items pertaining to the CS&L. These 60 items appeared to have face validity as to what should be measured. All the items were measured on 5-point scales, with anchors ranging from 1 denoting a very negative view and 5 indicating a very positive view. Besides the model items, some demographic variables such as age, gender, marital status were also included in the questionnaire.

3.6. Pilot Testing

Pilot testing was done to assist in determining if there are flaws, limitations, or other weakness within the interview design. This provided the researcher with an opportunity to revise and amended relevant issues and make changes where necessary before the survey instrument was distributed to the actual sample. The survey instrument was pre-tested with a group of 45 individuals who fall within the Criteria of the unit of analysis and represented 10% of the sample population.

3.6.1. Validity of the Instrument

Validity refers to the extent to which the measures used in the questionnaire are truthfully measuring the intended concept and not something else and include internal validity and external validity (Sekaran & Bougie, 2009). Internal validity refers to the ability of a research instrument to measure what it purported to measure whereas external validity refers to the extent to which results or findings of one study can be transferred to a similar situation. This argument is similar to Yin (2003) who adds that aspect of validity is a recourse that guarantees truthfulness and allows for a pre-test to validate the instruments. This study used this approach to modify and pre-test the questionnaire in order to capture the relevant data related to the study objectives.

3.6.2. Reliability of the Instrument

The reliability of an instrument relates to its ability to yield the same results on repeated trials and aims to minimize bias and error in the research (Yin, 2007). Cronbach's alpha which shows how well a set of variables or items measures a single, one-dimensional latent construct was used to test the reliability of the measures of the instrument. Bryman (2011) suggests that where Cronbach Alpha is used for reliability test, a rule of thumb is also used that states that the Cronbach values of the items in the study should not be lower than 0.7. To increase the reliability of the questionnaire, this study used Cronbach's Alpha for separate domains of the questionnaire rather than the entire questionnaire.

3.7. Data Collection Methods and Sources

Survey method was used in this study as it is the most common method regarding social science when the predicted population is too large to be observed (Bryman & Bell, 2005). The data was collected using a Web-based survey sent to the three target cohorts and randomly in the streets of the selected districts of Nairobi using Self-administered survey forms. According Bryman and Bell (2011), self-completion questionnaire ensures objectivity since the respondent answers without the aid of an interviewer. University students in the three identified cohorts constituted an appropriate sample for this study since students are likely to be heavy users of product categories that are frequently counterfeited (Cordell et al., 1996). Chakraborty *et al.*, (1997) identified college students as one consumer segment that knowingly purchases counterfeits.

3.8. Data analysis and Presentation

The data was analysed using both descriptive statistics and inferential statistics including correlation analysis, analysis of variance and regression using SPSS. Age, gender and marital status were treated as controlled variables giving unique effects of IV on DV. To get descriptive statistics measures of central tendency, mean and standard deviation were used to assess data characteristics and show variation in frequency of items. Inferential statistics were used to test a number of hypothesized relationships so as to allow generalization of the findings to a larger population. To establish the relationships between research variables, simple and multiple regression equations were used. The regression analyses provided estimate equations to predict the magnitude of the dependent variable and provide values for the predictor variables. In order to understand which factors effect and which have the most important effect on the subject of effect of attitudes on Purchase intentions (DV), multiple regression was used (Shiu *et al.*, 2009,) to get how much of the variance in the dependent variable were explained by the independent variables (Pallant, 2010). Pearson Correlation analysis was done to show the nature and strength of the relationship among variables of the study. The relationship was considered strong when $r = 0.5$ and above, moderately strong when r is between 0.3 and 0.49, weak when r is below 0.29, and a correlation of 0 indicates no relationship. Path coefficient of correlation was used to show the relationship among the extracted factors, the common and latent factors. Coefficient of determination (R^2) was used to determine goodness of fit of different models and used to measure the amount or degree of variation in the dependent variable(s) attributed to the predictor variable(s). Stepwise regression analyses was used for verification of mediating role by adding them sequentially to the regression equation to determine how much each variable is adding to the Predictor variable.

3.9. Statistical Measurement Model

Hair *et al.*, 2010 says that a model allows for specification of relationships between variables. The effect of consumer attitude on the purchase intension of mobile phone counterfeits was given as shown in equation 1.

$$PI = \alpha + \beta X + e \quad \text{Equation 1}$$

The mediating effect of consumer knowledge on consumer attitude towards counterfeits mobile phones was given as detailed in equation 2.

$$PI = \alpha + \beta X + \beta_1 X_1 + e \quad \text{Equation 2}$$

Where:

PI = Intention to Purchase mobile phone counterfeits

X = Consumer attitude

α = constant and the model equation intercept

$\beta - \beta_1$ = Beta values, Path coefficients.

X_1 = Consumer knowledge

e = Error term.

To test the level of mediation effect, the difference between two regression coefficients of the direct effect and the mediated effect was computed as suggested by Judd and Kenny (1981).

4. Results and Discussions

4.1. Sample Characteristics

Table 1 shows the characteristics of the samples used in the study. Both gender (male and female), age sets, married and single groups were represented in this study. Out of the 500 questionnaires administered, only 450 were returned representing 90% response rate. According to Mugenda (2003) a response rate of above 70% is acceptable in research.

Characteristics	Category	Frequency	%
Gender	Female	242	54.2
	Male	205	45.6
Age	18-24	195	43.3
	25-34	127	28.2
	34-44	78	17.3
	>45	50	11.2
Marital Status	Single	243	54.0
	Married	207	46.0

Table 1: Sample characteristics

4.2. Descriptive Statistics

The purpose of this study was to determine the mediating effects of consumer knowledge on the relationship between consumer attitude and purchase intention of counterfeit mobile phones in Kenya. Descriptive statistics for both dependent and independent variables was performed and their results are as detailed in sub-section 3.2.1 to 3.2.3.

4.2.1. Purchase Intentions

On expressing their views on purchase intension (PI), the respondents seemed to disagree (mean = 2) with almost all the statements on purchase intention as detailed in table 2.

Opinions	N	Min	Max	Mean	Std. Dev
Think about a counterfeited product as a choice when buying something	450	1	5	2.23	1.196
Buy a counterfeited product	450	1	5	2.15	1.173
Recommend to friends and relatives that they buy a counterfeit product	450	1	5	1.93	1.156
Recommend to friends and relatives that they buy a counterfeited phone	450	1	5	1.96	1.208
Say favourable things about counterfeit phones.	450	1	5	2.07	1.263

Table 2: Response on purchase intention

Key: 1=strongly disagree; 2= Disagree, 3=Neutral 4=Agree 5=strongly agree

4.2.2. Consumer Attitude

Response on consumer attitude towards mobile phone counterfeits attracted various responses from the respondents with majority of the respondents disagreeing (mean of 2) with most of the statements as detailed in table 3.

Opinions	N	Min	Max	Mean	Std. Dev.
Generally speaking, counterfeits have satisfying quality.	450	1	5	2.10	1.160
I have a positive perception towards counterfeit goods	450	1	5	1.79	1.105
While shopping, buying counterfeit goods is a better choice	450	1	5	1.83	1.128
There's nothing wrong with purchasing counterfeit goods	450	1	5	1.98	1.141
It would be desirable for me to buy counterfeit goods	450	1	5	1.85	1.089
Generally speaking, counterfeits are practical.	450	1	5	2.58	1.247
Generally speaking, counterfeits are reliable.	450	1	5	2.28	1.246
For me to buy/use counterfeits is convenient.	450	1	5	2.21	1.197
Generally speaking buying counterfeits benefits the consumer	450	1	5	2.26	1.252
For me to buy/use counterfeits is proud.	450	1	5	1.89	1.127
For me to buy/use counterfeits is guiltless.	450	1	5	2.35	1.356

Table 3: Response on consumer attitude

Key: 1=strongly disagree; 2= Disagree, 3=Neutral 4=Agree 5=strongly agree

4.2.3. Consumer Knowledge

Table 4 shows the respondents' feedback on consumer knowledge. With a mean of close to 3 it indicates that the respondents remained undecided (neutral) with all the statements on consumer knowledge.

Opinions	N	Min	Max	Mean	Std. Dev.
I feel knowledgeable about phones	447	1	5	3.39	1.096
I can give people advice about different brands of phones	446	1	5	3.3	1.145
I only need to gather very little information in order to make a wise decision	444	1	5	3.19	1.264
I feel very confident about my ability to tell the difference in quality between different brands of phones.	445	1	5	3.45	1.113
Compared to an average person, I know a lot about mobile phones	448	1	5	3.41	1.107
My friends consider me as an expert on mobile phones	448	1	5	3.06	1.228
I can easily tell the difference between a counterfeit phone and a real one	444	1	5	3.42	1.185
I can tell the value I can get from a counterfeit phone as compared to a real one	436	1	5	3.44	1.197

Table 4: Response on consumer knowledge

Key: 1=strongly disagree; 2= Disagree, 3=Neutral 4=Agree 5=strongly agree

4.2.4. Reliability Analysis

Reliability analysis was performed on both dependent and independent variables to ascertain the properties of measurement scale and the items that compose the scales. The range of the Cronbach Alpha obtained was within the acceptable levels as elaborated in table 5. This indicated a strong internal consistency among measures of variable items. Nachmias and Nachmias (2006) explained that a Cronbach's alpha test confirms the reliability and consistency of a tool. According to Sekaran (2010), the closer the alpha is to 1 the higher the reliability and a value of at least 0.7 is recommended. An alpha coefficient higher than 0.70 signifies that the gathered data has a relatively high internal consistency and could be generalized to reflect the respondent's opinions on the study problem

Variable	Cronbach Alpha	No. of items
Attitude	0.830	6
Purchase Intention	0.865	5
Consumer knowledge	0.892	8

Table 5: Response on consumer knowledge

4.2.5. Factor Analysis

Factor analysis operates on the notion that measurable and observable variables can be reduced to fewer latent variables that share a common variance and are unobservable, which is known as reducing dimensionality (Bartholomew *et al.*, 2011). To achieve this, both the dependent and independent variables were subjected to factor reduction as detailed in subsections 3.4.1 to 3.4.3.

4.2.6. Factor Analysis on Purchase Intention

Table 6 shows the variance explained for the dependent variable purchase intention (PI). Out of the five (5) factors that were considered to explain on purchase intention, only one factor (recommend to friends and relatives that they buy a counterfeited phone) was extracted and explained 65.5% of the variance observed in purchase intention. This was therefore used as a main factors explaining purchase intention in the subsequent analysis.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.276	65.520	65.520	3.276	65.520	65.520
2	.838	16.762	82.281			
3	.420	8.403	90.685			
4	.300	6.008	96.693			
5	.165	3.307	100.000			

Table 6: Total Variance Explained on Purchase Intention
Extraction Method: Principal Component Analysis

4.2.7. Factor Analysis on Consumer Knowledge

Consumer knowledge was explained by eight factors but out of these, only one factor (giving people advice about different brands of phones) was extracted to be explaining more on consumer knowledge. This factor explained about 57.3% of the variance in consumer knowledge (table 7).

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.585	57.317	57.317	4.585	57.317	57.317
2	.815	10.190	67.506			
3	.774	9.680	77.187			
4	.505	6.316	83.503			
5	.398	4.970	88.473			
6	.353	4.417	92.890			
7	.332	4.153	97.043			
8	.237	2.957	100.000			

Table 3: Total Variance Explained on Consumer Knowledge
Extraction Method: Principal Component Analysis

4.2.8. Factor Analysis on consumer attitude

Factor analysis on consumer attitude show only one (1) factor (It would be desirable for me to buy counterfeit goods) extracted to mostly explain variations in consumer attitude. This factor explained 51.2%. of the variation observed in consumer attitude (Table 8).

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.635	51.224	51.224	5.635	51.224	51.224
2	.998	9.072	60.296			
3	.772	7.017	67.313			
4	.699	6.358	73.671			
5	.585	5.318	78.989			
6	.494	4.495	83.484			
7	.464	4.219	87.703			
8	.402	3.658	91.361			

9	.353	3.211	94.572			
10	.319	2.899	97.471			
11	.278	2.529	100.000			

Table 8: Total Variance Explained on Consumer Attitude
Extraction Method: Principal Component Analysis

4.2.9. Normality test

Table 9 presents the normality test results. Considering the skewness and kurtosis statistics the data is assumed to be normal. According to George & Mallery (2010), values for asymmetry and kurtosis between -2 and +2 are considered acceptable in order to prove normal univariate distribution.

	Purchase Intention	Consumer knowledge	Attitude
N Valid	450	450	450
Skewness	1.137	-.243	1.236
Std. Error of Skewness	.115	.115	.115
Kurtosis	.201	-.619	.652
Std. Error of Kurtosis	.230	.230	.230

Table 4: Normality test

4.2.10. Correlation Analysis

To establish the relationship between the variables of the study, Pearson's Correlation analysis which is a measure of linear association between two variables was used. The test was done to identify the strength and direction of the associations among the variables of the study. Results in table 10 shows that the dependent variable consumer attitude is moderately correlated with purchase intention of counterfeit mobile phones ($r = 0.459$, $p = 0.01$). The correlation analysis also reveals that consumer knowledge is almost not correlated with purchase intention ($r = 0.124$, $p = 0.01$). According to Hair *et al.*, (2006) correlation coefficient (r) ranging from .81 and 1.0 are very strong; from .61 to .80 are strong; from .41 to .60 moderate; from .21 to .40 weak; and from .00 and .20 indicates no relationship.

	Consumer attitude	Consumer knowledge	Purchase Intention
Consumer attitude	1		
Consumer knowledge	.124**	1	
Purchase Intention	.459**	.141**	1

Table 10: Correlation Analysis

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed)

According to Garson (2012) inter-correlation among the variables of $>.80$ signals a possible problem of multicollinearity. Based on the findings in table 10, none of the variables had a correlation of more than >0.8 , which suggested that there was no multicollinearity.

4.3. Regression Analysis

Regression analysis was done to establish the form of the relationship between dependent and independent variables.

4.3.1. Effect of consumer attitude on purchase intention

Table 11 shows the regression model of consumer attitude on purchase intention. Attitude is a "learned predisposition to respond to a situation in a favourable or unfavourable way" (Huang *et al.*, 2004). The results indicates that consumer attitude significantly affects the purchase intention towards mobile phones counterfeits ($r^2 = 0.210$, $p < 0.05$). This implies that 21% of the variance in purchase intention is explained by consumer attitude. Hypothesis 1 which stated that there is no significant effect of attitude towards mobile phones on purchase intentions of mobile phones counterfeits in Kenya is therefore rejected. In a similar study, Muhammad *et al.*, (2014) found out that attitude have significance relationship with purchase intention towards counterfeit mobile phones (Beta = .325, $p = .001$). Having a negative (Positive) attitude towards counterfeiting has been reported to have a negative (positive) effect on the intent to purchase counterfeits (Swami *et al.*, 2009).

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.459 ^a	.210	.209	1.075	.210	119.299	1	448	.000

Table 11: Model Summary Consumer Attitude

a. Predictors: (Constant), Consumer Attitude

The standardized Beta value of 0.459 implies that there is up to 0.459 unit increase in purchase intention for each unit increase in consumer attitude (table 12).

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.019	.100		10.196	.000
	Consumer attitude	.508	.047	.459	10.922	.000
a. Dependent Variable: Purchase Intention						

Table 12: Coefficients on Consumer Attitude

Raquel *et al.*, (2012) also reported that attitude towards counterfeits positively and significantly influence intention to purchase counterfeited products. Similarly, Yoo and Lee, (2009) found out that the consumers positive attitude towards counterfeits influence their purchase intention positively.

The equation connecting consumer attitude towards purchase intention of mobile phone counterfeits in Kenya is given by:

$$PI = \alpha + \beta X + e$$

$$PI = 1.019 + 0.508X + 0.047$$

4.3.2. Mediating effect of consumer knowledge on the relationship between consumer attitude and purchase intention

To establish the effect of consumer knowledge on the relationship between consumer attitude and purchase intention stepwise regression with four steps was used. This allowed for the determination of the effect of the mediating factor (consumer knowledge) through change the coefficient of determination (R^2). The steps undertaken were: (i) Step one: Regression of the independent variable consumer attitude on the dependent variable purchase intention (ii) Regression of consumer attitude with the mediating factor consumer knowledge (iii) Regression of consumer knowledge with consumer purchase intention and (iv) Regression of the consumer attitude with purchase intention taking consumer knowledge as the mediating factor. The change in R^2 was taken as the effect of consumer knowledge on the relationship between consumer attitude and purchase intention.

- Step 1: *Consumer attitude and purchase intention*

Table 11 shows the regression model of consumer attitude on purchase intention. The results indicates that consumer attitude significantly affects purchase intention towards mobile phones counterfeits ($r^2 = 0.210$, $p < 0.05$). This implies that 21% of the variance in purchase intention of mobile phone counterfeits is explained by consumer attitude.

- Step 2: *Attitude and consumer knowledge*

The results presented in table 13 reveal that 1.5% ($r^2 = 0.015$, $p < 0.05$) of variation in consumer knowledge is explained by consumer attitude. The regression results further reveals that F and t values are significant ($F = 7.032$, $\beta = .130$, $t = 2.652$, $p\text{-value} < 0.05$). The standardized Beta value of 0.130 implies that there is up to 0.130 unit increase in consumer knowledge for each unit increase in consumer attitude.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.124 ^a	.015	.013	1.132	.015	7.032	1	448	.008
ANOVA ^b									
Model		Sum of Squares	df	Mean Square	F	Sig.			
1	Regression	9.015	1	9.015	7.032	.008 ^a			
	Residual	574.324	448	1.282					
	Total	583.339	449						

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.058	.105		29.048	.000
	Consumer attitude	.130	.049	.124	2.652	.008

a. Dependent Variable: Consumer knowledge

Table 13: Regression results consumer attitude and consumer knowledge

- Step 3: Consumer knowledge and Purchase Intention

The results in Table 14 show that consumer knowledge explains 2.0% of variation in consumer purchase intention ($r^2 = 0.02$, $p < 0.05$). The overall model ($F = 9.074$, $p < .001$) and individual variables are statistically significant ($\beta = .149$, $t = 8.480$, $p < .005$). This there means that the model is statistically significant model allowing for subsequent analysis to establish further effects.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.141 ^a	.020	.018	1.197	.020	9.074	1	448	.003

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.009	1	13.009	9.074	.003 ^a
	Residual	642.259	448	1.434		
	Total	655.269	449			

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.467	.173		8.480	.000
	Consumer knowledge	.149	.050	.141	3.012	.003

Table 5: Regression of Consumer Knowledge on Purchase Intention

- Step 4: Consumer Attitude with Purchase Intention Taking Consumer Knowledge as the Mediating Factor.

In step four, all the three variables namely: consumer attitude, consumer knowledge and purchase intention were entered into the regression equation to test for mediation effect. Based on the results in table 15, consumer knowledge positively and significantly mediates the relationship between consumer attitude and intention to purchase mobile phone counterfeits in Kenya ($r^2 = 0.217$, $p < 0.05$). This implies that that 21.7% variation in consumer purchase intention is explained by consumer attitude and consumer knowledge. The coefficient of determination (r^2) change from $r^2 = 0.015$ in step 2 to $r^2 = 0.217$ in step 4 indicating a significant 19.7% change ($p < 0.05$). The overall model was statistically significant $F = 9.074$; $p < .005$). This means that 21.7% variation in intention to purchase through consumer attitude is explained by consumer knowledge. Hypothesis 2 which stated that there is no significant effect of levels of consumer knowledge on the relationship between attitude and Purchase Intentions of counterfeit products is therefore rejected.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.466 ^a	.217	.214	1.071	.217	62.102	2	447	.000

Table 15: Model Summary
Predictors: (Constant), Consumer Knowledge, Consumer Attitude

The results further revealed that the regression coefficients in respect to consumer attitude reduced from .149 to .09 when consumer knowledge was added to the regression equation suggesting that consumer knowledge may be exerting a profound mediation effect on the relationship between consumer attitude and purchase intention.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.743	.169		4.392	.000
	Consumer attitude	.497	.047	.448	10.624	.000
	Consumer knowledge	.090	.045	.085	2.021	.044

Table 16: Regression Coefficients Consumer Knowledge
a. Dependent Variable: purchase intention

Results in table 16 the unstandardized Beta value of 0.085 implies that there is up to 0.085 unit increase in purchase intention for each unit mediation of consumer knowledge on purchase intention through consumer attitude.

The composite mediating effect of consumer knowledge on the relationship between attitude and intention to purchase will be given by:

$$PI = \alpha + \beta X + \beta_1 X_1 + e$$

$$PI = 0.743 + 0.497(\text{Attitude}) + 0.090(\text{Consumer Knowledge}) + 0.169$$

Table 17 shows the summary of the hypothesis tested in this study with four (4) hypothesis rejected and two (2) accepted.

Hypothesis	Statistics	Remark
Ho1: There is no significant effect of consumer attitude on purchase intentions of the phones in Kenya	$r^2 = 0.210$ $p < 0.05$	Rejected
H02: There is no significant effect of levels of consumer knowledge on the relationship between attitude and Purchase Intentions of counterfeit mobile phones	$(r^2 = 0.217, p < 0.05)$	Rejected

Table 17: Summary of hypothesis testing

5. Conclusion

Based on the findings of this study, the following conclusions are made as detailed in sub-sections 4.1 and 4.2.

5.1. Effect of consumer attitude on purchase intention of mobile phone counterfeits

The way individuals aged 20-50 think, feel and acts towards counterfeit mobile phones in Kenya significantly impacts on purchase intention ($r^2 = 0.210$ $p < 0.05$). This indicates their attitude is an important predictor of their intention to purchase counterfeit mobile phones.

5.2. Effect of consumer knowledge on the relationship between consumer attitude and purchase intention of mobile phone counterfeits.

Consumer knowledge significantly and positively mediates on the relationship between consumer attitude and purchase intentions of counterfeit mobile phones in Kenya ($r^2 = 0.217, p < 0.05$) among Kenya aged between 20-50. This implies that having knowledge of the counterfeit mobile phones affects their feel and thinking on purchasing them.

6. Recommendations

It is recommended that consumer knowledge is key in influencing the consumer attitude towards purchase intention of mobile phone counterfeits. It mediates positively with consumer attitudes and purchase intention and therefore should be considered as key in the mobile phone industry.

Marketers must devise new methods to target the powerful generation X and Y, also called the millennial generation (the generation born between 1986 and 2005 (Eastman and Liu, 2012). This is because the consumption behavior of millennials is driven by status consumption mainly. Although just like the earlier generations Status consumption amongst millennials is alive and well, this cohort of consumers' consideration of status symbols may be quite different than what previous generations consider status symbols as they are influenced heavily by the fear of The backlash. They want to show status in a discreet way so that others don't think negatively of them in the way that they would think negatively of others. Millennials prefer status items that can be displayed in a subtle manner without overt expression of status fosters which would elicit negative reaction.

The Government should carry aggressive campaigns to inform consumers of the prevalence and danger of counterfeit consumption and create incentives for the marketers of genuine products to be able to avail such good products at good competitive. Price to the consumer's manufacturers should carry out research and make version of the original product that are affordable by members of the society with less ability to purchase.

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