

# The Impact of Personal Characteristics on Consumer's Purchase of Innovative Durable Electronics Products in Kano Metropolis

Prof. Bamidele A. Adepoju

Business Administration and Entrepreneurship, Faculty of Social and Management Sciences, Bayaro University, Kano

Akinsola Folasade Joan

Department of Business Administration and Management Studies, The Federal Polytechnic, Damaturu Yobe State, Nigeria

## Abstract

The study assessed the Impact of Personal Characteristics on Consumer's Purchase of Innovative Durable Electronics Products in Kano Metropolis. The objectives of the study is to ascertain the extent to which personal characteristics of gender, age, income and education affect consumer's purchase of innovative durable electronic goods. The study population was the entire consumers that purchases electronic products from the 8 local governments areas selected for the study. The researcher used sample size of 500 respondents and data were obtained using questionnaires. Data presentation and discussions were supported with chart and tables to make the whole work easy to read and understand by all and sundry. The study showed that out of the four consumer's personal characteristics of age, sex, income and education examined, only age is found to have significant impact on consumer's purchase preference for innovative durable electronic goods of TV, refrigerator, DVD players, and satellite receivers. This is basically supported by previous researches, and especially Roger's innovation diffusion theory, which forms the theoretical basis of this study. The researchers recommend that marketers should take cognisance of age in new product diffusion. Importantly, opinion leaders, being younger should be targeted tv advertorials to make innovations more sellable. Invariably, customized advertising can equally evolve. In addition, as Hausman (2015) reiterates, such could be given some stipends to encourage them perform the opinion leadership more effectively.

**Keywords:** Personal Characteristics, Consumer, Consumer Purchasing Power, Innovation, Durable Electronics Products

## 1. Introduction

There is the need for product adoption once it is diffused, otherwise, such efforts have become a waste or total failure; this is why, most often, most products become extinct in the early stages of their product life cycles, yet innovation is a crucial aspect of managerial efforts required and demanded for organizational survival and growth (White et al., 2007; Boddy, 2008, Hausman, 2014). The increasing levels of sophistication of individuals and firms in their tastes and choices has become fertile ground for investors in their research efforts and entrepreneurial creativity (Guerzoni, 2007; Adepoju, 2009; and Yomere, 2009). Consumer socio-economic factors of income, age, gender, cultural, social, personal and psychological characteristics are dynamic in nature and have strong impact on their shopping patterns (Smith & Taylor, 2002). Given the truism that an individual's motivation is influenced by his/her life experiences (Schiffman & Kanuk, 2003), marketers of especially new electrical durable products indisputably have to conduct research of consumer goods to address these variables to ensure adoption of their new products. Any innovation that does not plan for adoption and diffusion is bound to fail ( Hausman, 2014).

## 2. Statement of the Problem

Valent (2003) indicate that over the years, marketing practitioners have relegated the centrality of consumer satisfaction to the background in favour of organizational benefits. Interfirm linkages provide several benefits to firms such as partnership deals for technical and other resource needs, increased market share objectives through product development and innovation (Li and Atuahene-Gima, 2002). Others are concerned with the time-span for innovation diffusion in the market place with the likelihood of increased uncertainty in sales response, among others (Van-Herde, Mela, & Machanda 2003; Bstieler, 2006; and Iwu 2010). Austin & Macauley (2000) observe that few organisations are geared towards customer-oriented benefits (demand side). A work that is indigenously to Kano and consumer-oriented is that of Garga (2010), which examined gender in consumer purchase of durable household goods. ASME (2005) argues that individual beliefs of the attributes of an innovation significantly predict most of the variance in future adoption and use. Yet, relatively little effort is devoted to analyzing the attributes of an innovation and its impact on diffusion. Miles & Green (2008) reiterate that research into people's tastes and preferences is vital in shaping new products and services, but it is often excluded from firms' R & D schedules. According to NESTA (2010), this observed neglect of consumer-sought-for benefits has long term negative consequences for an organisation. This is the gap the study posits to fill.

### 3. Objectives of the Study

The general objective of this study, which equally is the specific objective is to ascertain the extent to which personal characteristics of gender, age, income and education affect consumer's purchase of innovative durable electronic goods.

### 4. Research Question

The basic research question which serves as guide for this study is:

3. To what extent does consumer's socio-economic factors of gender, age, income, and education affect his purchase of new durable electronic goods?

### 5. Research Hypotheses

To provide additional guide for this study, the null hypotheses have been formulated is that:

H<sub>0</sub>: Consumer socio-economic variable of gender, age, income and education have no significant impact on purchase decision for new durable electronic goods.

### 6. Scope of the Study

The study area of this research is restricted to Kano Metropolis. The study is also limited to consumer personal characteristics of gender, age, income and education. Again, the study limited itself to the following new durable electronic goods: TV, Refrigerators, DVD players and Satellite TV receivers. The concept of innovation, definition and types of innovation; innovation diffusion, and innovation adoption: process, categories and rate, speeding adoption and diffusion form the basis of the review. The findings from this study are limited by the number of copies of questionnaire distributed to the respondents (500 in all). A more broad generalization would require a wider coverage, and extension to other major commercial cities in the country such as Lagos, Abuja, and Ibadan among others. Furthermore, inherent respondents' biases typical of a survey research cannot be ruled out. Selected durables in this study are only few (TV, Refrigerators, DVD players and Satellite TV receivers) out of a host of the total durables which are normally used by the consumers.

### 7. Literature Review

Literatures relevant to the study are reviewed, basically, conceptual issues on innovation, definition and types; innovation diffusion, innovation adoption: process, categories and rate and socio-economic variables and impact on frequency of purchase on innovative products

#### The Concept of Innovation and its Influence in Product Adoption

According to Daghfous, Petrof & Pons (1999), economists had earlier dominated the study of the spread of innovation in the late 1950s. During the 1960s, new conceptual approaches appeared which had better structures and more relevance to marketing. Daghfous, Petrof & Pons reiterate that Rogers (1962) and Bass (1969) pioneered the first analytical models in marketing theory of the diffusion of innovations. Rogers' model in succession approaches the individual process of adoption, variables likely to affect such a process and the classification of the adopters according to their reactions toward new products. This results in the categorization of innovation adopters as innovators, early adopters, early majority, late majority and laggards. The innovators are the youngest, early adopters are younger, while the laggards are the oldest of all other adopters (On Digital Marketing, 2015). Sahin (2006) describes Rogers' theory as a widely used theoretical framework in the area of technology diffusion and adoption. ASME (2008), Lynch (2008), Miles & Green (2008), Vishwanath & Goldhaber (2003) among others successfully used Rogers' theory as a foundational root. It thus serves as the theoretical basis for this study.

#### Definition and Types of Innovation

Innovation has been variously conceived from divergent views, taking into cognisance variables of significance to the industry/market in question. Despite these disparities, there are common variables used to describe the level and/or extent of innovation such as the nature of the organization, type of product/service offering, market, consumer perspectives and the like. Dwyer & Tanner (2002) indicate that innovation can be said to imply innovative marketing strategy, innovative corporate structure, or innovative manufacturing processes. Kitchell (1995) posits that innovative firms tend to focus on opportunity risk, while noninnovative firms focus on investment risk. This could be the reason behind the fact that entrepreneurs are described as risk takers; that is individuals who take measurable risks that could be profit yielding (Akinsola, 2015; Itodo, 2011). O'Callaghan (2006) posits innovation from two angles: innovation as a management process and innovation as a business process. As a management process, innovation entails identifying, designing, developing prototypes, and launching a new product, widespread adoption, diffusion to other areas, as well as the socio-economic impact of innovation. Innovation as a business process implies searching, selecting, implementing and learning. Hawkins, Best & Coney (2001) as well as Fregene (2008) define innovation from a behavioural perspective to encompass 'an idea, a practice, or an object perceived as new by an individual or other unit of adoption'. Innovation from the entrepreneurial perspective projects driving innovation and championing change: newness - in product, methods, market, organizational structure; ability to take advantage of opportunities and/or innovation; creative thinking (Boddy, 2008; Abdullahi 2009; Nemati, Khan, & Iftikhar, 2010). Greenhalgh, Robert, MacFarlane, Bate

& Kyriakidou (2004) define innovation in service delivery and organisation as: “a novel set of behaviours, routines and ways of working ... directed at improving health outcomes, administrative efficiency, cost effectiveness, or users’ experience and that are implemented by planned coordinated actions”. From whichever perspective innovation is viewed, the very essence is for creativity to good advantage, both from the producer and consumer perspectives. However, a long lasting effect is achieved if the driving force is basically consumer oriented. Thus, an innovative organization would have proper structure (i.e. abundant resources, high communication between work units, cultural inclined with low external controls, tolerance of risks, open systems, focus, and positive feedback. In addition, it would have effective human resource policies, high committed, creative workforce, and high job security (Boddy, 2008; Lynch, 2008).

### **Innovation Diffusion**

Kotler & Keller (2007), among several authors, have adopted Rogers’ (1995) definition of innovation diffusion process as “the spread of a new idea from its source of invention or creation to its ultimate users or adopters.” Fregene (2008), indicate that it is a special type of communication concerned with the spread of messages that are perceived as new ideas. Today’s world of information technologies aids the rapid diffusion of innovation through the Internet, cell phones, a combination of relevant aspects of the mass media and interpersonal channels. The innovator must be able to induce the adopter to perceive his product offering as new through different promotional tactics. This is imperative as Zikmund & D’Amico (1996) reiterate that promotions moves the customer seven steps to the ‘Hierarchy of Communication’ (that is from brand ignorance, awareness, knowledge, liking, preference, conviction to purchase behavior).

The diffusion of innovations offers three valuable insights into the process of social change: the qualities that make an innovation spread successfully, the importance of peer-peer conversations and peer networks, and lastly, understanding the needs of different user segments (Robinson, 2009). Four crucial elements in Everett Rogers’ diffusion are an innovation, communication, time and social system. The theory seeks to explain why, and at what rate new ideas and technology spread through cultures. Talukdar, Sudhir & Ainslie (2002) argue that a better understanding of the determinants of market potential and diffusion speed across different countries is of particular relevance to firms deliberating their market expansion strategies. This is significant in that the attractiveness of a market is a function of the eventual market potential and the speed at which the product diffuses through the market. Marketers and diffusionist researchers have the goal of shortening the time lag between introduction of an idea or product and its widespread adoption, for successive groups of consumers who adopt the new technology. Undue delays often result in loss of market share to ‘smarter’ pirating firms who are noted for sidetracking the copyright organisations through “me too” product imitations.

The definition of the diffusion process given by Schiffman & Kanuk (2003) portrays the diffusion process as four-dimensional: the innovation, the channels of communication the social system and time. The channel must be perceived as credible. Although most innovations are inclined towards organisational benefits, yet the consumers primarily seek the benefits or values derivable from a new product offering. Hence, at individual and wider social levels, the organisation must be seen as positively contributing to a social system. Also, wrong or delayed timing usually lead to unbearable costs, or the total failure of a product innovation.

Robins (2009) reiterates that Everett Rogers’ theory of innovation diffusion clearly map out five attributes which help to predict when and where adoption occurs under given social circumstances as: relative advantage, compatibility, complexity, trialability, and observability. According to Hausman (2014), these factors are indispensable for speedy and diffusion of innovation. In essence, consumer beliefs or perceptions of innovation attributes, along with external socioeconomic and media exposures, influence the decision to adopt an innovation (Vishwanath & Goldhaber, 2003). Cateora & Graham (2005) observe that the rate of diffusion is positively related to relative advantage, compatibility, trialability, and observability, but negatively relative to complexity. Marketers therefore require adequate knowledge of values sought for in product, how compatible such product/services are with social norms/behaviour patterns, e.g. peers, social class, and so forth. Furthermore, provisions should be made to clear complexities associated with product use such as, light voltage level required for operating certain electronic gadgets. Financial considerations and special offers could serve as baits to encourage purchase. Appropriate Research and Development (R & D) and Marketing Intelligence System (MKIS) and proper networking to monitor consumer’s degree of perceived newness of product offerings. Effective diffusion of innovation depends on the structure and quality of social network, the existence of a homophily, the harmonisation of the opinion leader’s influence, effective boundary spanners and of course formal dissemination programmes by the marketing organisation. When individuals have similar socioeconomic, educational, professional and cultural backgrounds for instance, the homophily factor is the diffusion tool at work (Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004). This could be said to be the case of Kano metropolis with individuals having similar socioeconomic traits, and so they display similar tendencies. Husbands and wives can now be found shopping together in shopping malls, sometimes with their children.

Some working class women and other housewives too are seen examining diverse new durable electronics hardwares in retail stores like Jifatu Superstores, Jujinlabu, Shopwell, and so on.

### **Innovation Adoption: Process, Categories and Rate**

Innovation adoption is an individual's decision to become a regular user of a product (Kotler & Keller, 2007). This decision is often influenced by his/her personality traits, socioeconomic influences; interpersonal channels and mass media use as well as the perceived attributes of the innovation. For instance, the innovators are of high social class, have great financial lucidity, are youngest in age, vast in information sourcing (Hausman, 2014). This agrees with the view of Daghfous, Petrof & Pons (1999), that the adoption process has psychological and sociocultural dimensions because they are significant to its success or failure. Kotler & Armstrong (1994) categorise the adoption process into five: awareness, interest, evaluation, trial, and adoption. Perreault, Jr. & McCarthy (2005) conceptualise the process as six-fold: awareness, interest, evaluation, trial, decision and confirmation. At the adoption stage identified by Kotler & Armstrong (1994), the consumer decides to make full and regular use of the innovation. This adoption stage is expanded into decision and confirmation in Perreault, Jr. & McCarthy's (2005) classification.

The steps to the new product adoption process are similar to the problem-solving process. A distinguishing feature is that learning and promotional efforts are more prominent in the former. Hence, marketers of product innovations often make use of different forms of advertisements to help consumer's adoption of new products, especially high purchase involvement ones. This aids in reducing or eliminating purchase dissonance, i.e. tension caused by uncertainty about the rightness of a decision. At the awareness stage, pioneering advertisements are used to build primary demand. Informative advertisement at the interest stage to inform, describe and demonstrate benefits of the new product. Competitive advertisement is used to develop selective demand for a specific brand at the evaluation and trial stages. Direct-action retail advertisements, point-of-purchase advertisements and price deal offers are used at the decision stage. Marketers also make use of reminder advertisements and informative 'why' advertisements to reinforce previous promotion (Perreault & McCarthy, 2005). Marketers need to do this for today's consumers are significantly more and more sophisticated, inquisitive and adventurous in their purchase decisions.

Several factors determine an individual's decision to become a regular user of a product. Kotler & Keller (2007; Swanson, 2015; On Digital Marketing, 2015 and Hausman, 2015). identify them as: differences in individual readiness to try new products; the effect of personal influence; differing rates of adoption; and differences in an organisation's readiness to try new products. These disparities in value orientations and motives in new product adoption led to the grouping of individuals into five adopter categories as: innovators (2.5%), early adopters (13.5%), early majority (34%), late majority (34%), and laggards (16%) (Kotler & Armstrong, 1994). Innovators are venturesome and try new ideas at some risk. This perhaps explains why they are few. The early adopters are early but cautious in their adoption of new ideas. They are opinion leaders in their community. The early majority adopt new ideas before the average person. Scepticism is a characterising feature of the late majority. They adopt an innovation only after a majority of people have tried it. They are price sensitive, technology shy, and risk averse. The laggards are tradition bound, suspicious of changes and adopt the innovation when it has become something of general practice. For instance, in the purchase of tv sets, innovators would have long forgotten about buying coloured tvs or even the latest brands of the plasma version, while laggards might still be purchasing black-and-white models for the first time. Marketers need to focus on the early adopters/the opinion leaders, whose behaviour influences others. This will help reduce dissonance tendencies associated with the purchase of a totally new product concept or high-value item.

Schiffman & Kanuk (2003) reiterate that many consumer researchers have observed that the classic five adopter categories in innovation adoption do not reflect real marketing experience. Hence it becomes logical to introduce a non-adopter category which reflects more of market place realities for not all potential consumers adopt a particular product or service innovation. Such categories range from two or three categories that compare innovators or early triers with late triers or non- triers. Schiffman & Kanuk emphasize that the rate of adoption implies how quickly it takes a new product to be accepted by those who will ultimately adopt it. Although the coloured TV took about five years to penetrate Japan, and several more years for Europe, yet it took about 12 years longer for black and white TV in Europe, and Japan, as in the US. In contrast, the penetration levels for the compact disc players in Europe, Japan and US were about even after only three years, (Schiffman & Kanuk, 2003). There is a clear indication then that adoption of TVs is slower than that of the compact disc players.

### **Socioeconomic variables and impact on frequency of purchase on innovative products**

The innovation diffusion model clearly indicates that variables of income, age, social interaction such as peer influence do affect decision to purchase an innovative product. Smith & Taylor (2002) similarly support this view and indicates that personal characteristics of age, income, education, experience with the product category and gender factors may also affect acceptance or rejection of innovation. In terms of age, the innovators are

youngest in age, the early adopters are typically younger, while the laggards tend to be advanced in age: they are the oldest of all other adopters (On Digital Marketing, 2015); the innovators are high social class, and have great financial lucidity, worldier, and more active in their community; early adopters rely more on group norms and values and are active inside their community and want other's respect. They are regarded as the opinion leaders. The early majority collect more information, weigh pros and cons before taking a decision, listen to opinion leaders. Late majority adopt new product mainly because friends have adopted them and they want to conform to the older. They listen to word-of-mouth communication over mass media, since they trust friends more. Laggards do not rely on group norms and values. They are usually the last to try their hands on new products, probably, when such have become obsolete.

Hawkins, Best and Coney indicate (2001) that the consumer's perceptions are driven by the individual's lifestyle, and current situation. Marketers need to use interesting and value-driven advertisements to aid consumer's perception of a problem, hence desire for their new products. New product and development efforts should particularly focus the benefits sought as this portrays more the demand side of innovation. The use of specific media and relevant distribution channels would equally aid rapid innovation diffusion.

Gender differences in brain functioning are used to explore differences in information processing of advertising messages. Marketers of high technology products such as the personal computer, microwave, etc, now recognise the growing importance of women as customers for such products. It would seem fair to assume that differences in cognitive functioning, learning styles and judgement criteria could result in gendered differences in consumer decision making for technological innovation. It is now common place to see women dressed in northern indigenous clothing used for household durable product advertisements, among others.

Kotler & Keller (2003) identify that buying roles change with evolving consumer lifestyles, with regard to cultural gender. In the U.S., the wife is the traditional buying agent. Men are more prone to do household purchases in northern Nigeria, because of religious inclinations. This is gradually frizzling out with the impact of western education and its embedded culture. Today, more women are liberated from the 'purdah' system; they take up paid employments, and are seen in streets engaged in household shoppings for their families. This might explain why marketers now use women for advertorials in home appliances, and other consumer durables.

Ma (2010) establishes that product choice is affected by a person's economic situation. As such, consumers have a higher willingness to pay when the product quality is high. Hence, it is logical to reason that the higher the disposable income, savings, and access to credit, the higher the willingness to purchase durable products.

The consequences of diffusion of an innovation may be functional or dysfunctional, depending on whether the effects on the social system are desirable or otherwise. The marketer's major concern is with the perceived functional consequences, that is, the positive benefits of product use. Most situations in which the marketer purposely sets out to gain cultural acceptance record minimal, if any, dysfunctional consequences (Cateora, Graham & Salwen, 2008). This by implication shows that innovation indeed contributes to growth and may inadvertently remodel the very fabric of a social system. Therefore, marketers need to have adequate knowledge of the consumer's socio-economic variables that influence his/her purchase decision for effective innovation diffusion and adoption.

## **8. Research Methodology**

Survey design, using the multistage sampling technique was used to select the sample size from the population. The study population is Kano Metropolitan, (which represents the commercial nerve centre of northern Nigeria), made up of 6 local government areas, plus two adjoining local government areas, making 8 in all. Therefore, the population of this study was made up of all consumers that purchased new durable electronic products as TVs, refrigerators, DVD players and satellite receivers, and are either working or resident in the selected Local Government Areas. Furthermore, the sample used for the study are those literate enough to complete the questionnaire. The population size of the respective LGAs, as given by the National Population Commission (2006), are as follows: Tarauni – 221,367, Fagge – 198,828, Nassarawa – 596,669, Gwale – 362,059, Dala – 418,777 and Kano Municipal – 365,525, Ungogo - 369,657 and Kumbotso – 295,979. The multistage sampling technique is used to select the sample size. The instrument of data collection was structured questionnaire. Firstly, the local governments were geographically stratified, using the geographical stratification given by the National Population Commission (2006) viz: Tarauni, Fagge, Nassarawa, Gwale, Dala, Kano Municipal, Ungogo and Kumbotso. Secondly, the determination of the number of respondents chosen from each stratum (local government) was done using proportional sampling technique. Thirdly, the convenience sampling technique was adopted to select the required respondents from each stratum for ease of administration and collection of the administered research instrument. The administered questionnaires were personally administered and retrieved with the assistance of few social research experts.

The research questions and hypothesis were used to draft the questions in the instrument to keep the content and focus of the research in view. The research instrument designed for this study was subjected to both

face and content validity. Hence, the instrument was screened and critically examined by social science experts in the field of behavioural and social sciences at the Bayero University Kano, as well as the Federal College of Education, Kano. The comments and suggestions from the pilot study conducted were incorporated into the construction of the final instrument to enhance the reliability of the instrument.

**Table 8.1: Determination of Sample Size**

Local Government Area	LGA Population (X)	Sample Size { $X/Y \times N$ }
Tarauni	221,367	39
Fagge	198,828	35
Nassarawa	596,669	106
Gwale	362,059	64
Dala	418,777	74
Kano Municipal	365,525	65
Ungogo	369,657	65
Kumbotso	295,979	52

*Source: Data Compiled by the Researcher, 2015*

*Key: X = Stratum (LGA) Population; Y = Population of Study Area = 2,828,861;*

*N = Target Sample Size = 500*

## 9. Data Analysis

The completed copies of the questionnaire were retrieved from the respondents, assembled and edited. The editing involved checking for completeness of the information supplied legibility, comprehensibility and consistency. Consequently, the usable copies of the questionnaire were serially numbered and numerically coded for computer processing. Both descriptive and inferential statistics were used to accomplish data analysis. Specifically, the Pearson Correlation Coefficient ( $r$ ), and the Linear Regression were the statistical techniques employed to test the research hypotheses. The statistical tests were at 95 per cent confidence level. Descriptive statistics such as the percentages, frequency, were also used. The Statistical Package for Social Scientists (SPSSV.16) was used to analyse the data collected.

### Discussion of Findings

A total of 500 copies of the questionnaire were distributed. Only 443 copies (representing 88.6%) were returned, while 57 or 11.4% were not returned. Out of the number returned, 413 (82.6%) were found usable for analysis, while 30 (6%) were not usable. First, the respondents were classified on the basis of sex. Analysis revealed that 288 or 69.7 per cent of the total respondents were male, while 125 or 30.3 per cent were female. The lower percentage of female to male may not be unconnected with the religious and cultural values inherent in the study area.

The respondents were further classified in terms of age. Analysis also showed that 195 or 47.2 percent were youths (30 years and below). 168 or 40.8 percent were younger adults (31 – 45 years) while 50 or 12 percent were older adults (46 – 60 years). Regarding the monthly income of the respondents, the data analysed revealed that 197 or 47.6 percent earn ₦ 75, 000 or less; 161 or 38.9 per cent earn within the range of ₦ 76, 000 - ₦ 150, 000 and 55 or 13.4 per cent are earn within the range of 151, 000 - ₦201, 000 and above. The respondents' income thus spread within the low, medium and moderately high income earnings. Regarding the highest educational qualification of the respondents, 57 or 13.8 per cent are of low level education which is either primary or secondary school leaving certificate. 104 or 25.2 per cent are of medium-level education which is either NCE/ND, and 252 or 61 per cent are of higher-level education which includes B.Sc. degree/HND and above. This shows that the respondents have varying degrees of educational attainment.

### Effect of Socio-Economic Variables on Consumer Preference for New Durable Electronic Goods

Key issues in this study is to ascertain the extent to which such consumers' socio-economic variables as Gender (sex), age, income and education has effect on their desire for new durable electronic goods. *Hypothesis 1* which states that: "Consumer socio-economic variables have no significant effect on consumer's purchase decision for new durable electronic goods" was tested using Pearson Correlation Coefficient. Furthermore, Linear Regression analysis was effected for each of the socio-economic characteristics and the consumer preference for new durable electronic goods. The results obtained were apparently similar to that of correlation analysis.

**Table 4.1: Test of Relationship between Each of Socio-Economic Variables: Sex, Age, Income and Education and Consumers' Desire for New Durable Electronic Goods**

Variable	Correlation coefficient (r)	Significant level	Comment
Sex	0.008	0.878	Ns
Age	-0.149	0.002	S
Income	-0.038	0.442	Ns
Educational qualification	-0.062	0.207	Ns

*N= 413*

*Source: Field survey (2015)*

*Ns = not significant*

*S\*= significant at P < 0.05*

The above results show that each of (i) sex (ii) income and (iii) educational qualification has no significant impact on consumers' preference for new durable electronic goods. However, a significant relationship exists between age and consumer preference for new durable electronic goods. The result of the test of Hypothesis 1 based on Pearson Correlation  $r = -0.149$ ,  $df = 1$  which is statistically significant at  $P < 0.05$ . Hypothesis 1 is thus partly supported. Likewise, Linear Regression analysis shows similar results. Thus, there is no significant relationship between sex, income and educational qualification and consumer preference for new durable electronic goods. However, a significant relationship exists between age and consumer preference for new durable electronic goods. Specifically, it exhibits the coefficient of determination ( $R^2$ ) = 0.222. This shows that age explains 2.2 per cent of the variation in the index of reason for change. Thus, age is a good predictor of consumer preference for new durable electronic goods. The researcher sought to examine the effects of personal characteristics on consumer's purchase of innovative durable electronics products. The selected electronic goods are TV, Refrigerator, DVD players and Satellite Receivers. The data analysed have revealed that only age is realised to have significant bearing on consumers' purchase behaviour for new durable electronic goods. This correlates with rivulet of literature that innovation adopters tend to be younger. The research findings of Browning, Crossley & Luhrmann (2012), for instance indicate that demand for consumer electronics rises with age. Conversely, sex, income and education have been found with less significant bearing. The research findings of Pandey & Pandey (2012), with regard to income and sex, indicate that India consumers are very much price sensitive in their selection of TVs. Although they prefer highly priced products, they do not go for costly product selection without taking into consideration expert opinion. In addition, durable goods purchasing decisions are not male dominated; female counterpart participation is equally significant. Schupp & Gillespie (2001) identify at least three reasons why income and education have insignificant impact on consumers' willingness to purchase imported goods over home-made durable goods. Firstly, the "Animosity Model" in which consumers exhibit negative/positive attitudes towards products produced by countries for which they have a strong negative/positive feeling. Secondly it has to do with ethnocentrism tendency. This means the consumers want to support the country or group to which they belong. Thirdly, the "halo" effect which implies the reputation the country has gained for product quality and innovation.

## 11. Conclusions, Recommendations and Suggestion for Further Studies

### Conclusion

On the basis of the research findings the study concludes that out of the four consumer's personal characteristics of age, sex, income and education examined, only age is found to have significant impact on consumer's purchase preference for innovative durable electronic goods of TV, refrigerator, DVD players, and satellite receivers. This is basically supported by previous researches, and especially Roger's innovation diffusion theory, which forms the theoretical basis of this study.

### Recommendations

Based on the research findings and conclusions, the researchers recommend that marketers should take cognisance of age in new product diffusion. Importantly, opinion leaders, being younger should be targeted tv advertorials to make innovations more sellable. Invariably, customized advertising can equally evolve. In addition, as Hausman (2015) reiterates, such could be given some stipends to encourage them perform the opinion leadership more effectively.

### Suggestions for Further Research

This study has primarily focused attention on the demand side of innovation. As clearly shown, this aspect has been grossly neglected over the years in favour of gains organisations derive from innovations. Much can be achieved on efforts to unearth other factors apart from socio-economic variables of sex, age, income and education, sources of information and product features examined in this study. Also the range of electronic goods could be expanded from four to say six or eight. This study has focused only on the effects of innovation on durable electronic goods. Comparative analyses could be conducted between durable and non-durable goods;

between product quality through innovation and customer involvement; between product quality through innovation and improvement in product promotions. Furthermore, to enhance the prospect of generalizing the findings of the current study, it is pertinent to expand the scope in terms of the sample size. The study can therefore be replicated using a larger sample size, perhaps one that covers additional commercial centres in other states of the federation.

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