



## ENVIRONMENTAL SCIENCES

### INFLUENCE OF KNOWLEDGE AND OTHER DECISION VARIABLES IN THE ACQUISITION OF HOUSEHOLD APPLIANCES AMONG CIVIL SERVANTS IN ABUJA METROPOLIS, NIGERIA

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#### ABSTRACT

The study surveyed the influence of knowledge of consumers in making sound priority acquisition of household appliances related to some demographic factors (social class, income, family life cycle and education qualifications) as independent variables and questions on knowledge of the respondents on purchase of household appliances as dependent variables. A structured instrument was constructed covering both independent and dependent variables. The reliability of the instrument was obtained at 0.832 Chronbach alpha reliability. Convenience sampling technique was used to obtain two hundred (200) samples for the analysis. ANOVA was used for hypothesis testing of significant difference at  $P \leq 0.05$ . The results of the findings revealed that for both social class [sig. at 0.000] and income [sig. at 0.000] indicates that social class and income do not influence the extent of knowledge for sound priority acquisition of household appliance while family life cycle [sig. at 0.801] and educational qualification [sig. at 0.130] indicates it does. Females [sig. at 0.000] and males [sig. at 0.017] at  $t$  – critical value of 1.96 does not indicate significant difference exists among those who do research and those who do not research about household appliance before purchase to indicate sound priority acquisition. It can be concluded that social class and income does not influence consumer's sound priority in household appliance acquisition while family life cycle and educational qualification does. Also, to do research about appliance before purchase is not common to both male and female consumers. It is recommended that consumers of high social class and income may delegate assistants/associate to seek for knowledge or information on their behalf in order to enable them make adequate decision on household appliance. It is, also, recommended that they should avail themselves to internet technology for knowledge about household appliance.

**Key words:** *Influence, Knowledge, Decision, Variables, Household Appliance, Acquisition, Civil Servant.*

## INTRODUCTION

The dynamics of social change in the market place especially between marketers and consumers have resulted in behaviour that questions and challenges many manufacturer's influences and practices. It is necessary to facilitate the understanding of consumer's decision – making process in order to improve on it in a beneficial way to everyone. Consumer behaviour studies individual and consumer characteristic such as the behavioral variable of internal influence like culture, subculture, locality, family, reference groups, social class, individual and market factors in an attempt to understand people's needs and wants. Social class is not only determined by income but various factors as wealth, education occupation, family roles, family life cycle and status, special skill and other characteristics (English and Leuck, 2000; Cherlin 2002; Gerald, 2004; Brown, 2009) and life styles, economic situation, education, age (Cherlin, 2002; Peng, Nicholas, Sabyosichi, 2009).

The consumer's inner and social environments are experienced at two levels. The more complex and unique level is the internalized level which includes the biological, psychological and social factor that suit the experiences of functional personal values which are the ideals, preferences and decisions of the individuals. At the collective level, virtue represents the person's standards and principles of the general society considered good and desirable. The society guides the behaviour and social values of its members' thereby controlling and promoting conformity which have significant bearing on their decision – making process and consumption patterns. Schiffman and Kanuk (2009) noted that higher price indicate affordability and status, while emotional aspects become pertinent on the decision – making process. In other words, quest for social status is a factor or motivation for purchase. Similarly, Tian, Bearden, Hunter (2001) explained that the interior objects including household appliances are often used to impress others.

Household appliances include cooling, cooking, Laundry and building appliances. These are the more expensive household appliances considered as long term purchase due to their expanded services. Similar appliances are irons, toasters, scales, grinders, coffee machines, etc. Those household machines that comprise CDS and DVDs players, television sets, cameras, etc. are those equipment that make – up what the modern household desire but their acquisition is determined by the financial status of the family (Duplesis & Rousseu (1999). In developed countries these can be taken for granted but not so in Nigerian as in many

developing countries. Many Nigerian households are more likely to be equipped with rudimentary substitutes which are cheaper and more easily available and affordable (Ogboyomi, 1999).

Acquisition cannot be made without the exhibition of behaviour between different alternatives. It appears the behaviour of the consumer hinges on the limitation of knowledge/information processing abilities of consumers. Consumers' motivation and decision strategies usually differs from product to product due to level of importance or interests they entail for the consumer (Ajzen, 2001). Consumer information services, therefore, is vital to household appliance acquisition which involves having a good knowledge of the commodity to be bought to ensure its suitability for its' intended use. Advertisement is one form of consumer motivation.

Advertisements are useful information sources about what is available as well as the added details on the labels placed by the manufacturer. The knowledge of advertisement helps in understanding the consumer wants, needs, motives and tastes. Learning may impact on what products will satisfy their needs. Thus, learning influences consumers in developing favourable/ unfavourable attitudes and beliefs towards certain products (Hopkin, 2006). Frost, (2006), opined that beliefs and attitudes does not make-up consumer brand image and affect their buying behaviour. The consumer does not always have to go through a learning process itself, rather, possibly learn from the consequences of others.

Armould, Price and Zinkman, (2004) explained that in a more dynamic sense, the individual who constitutes a most basic social group, who live together and interact to satisfy their personal and mutual needs constitute the family. The buyer behaviour is strongly influenced by its members, hence, buying roles change with change in consumer lifestyles. The stages in which the family find themselves in the course of their life cycle affect the nature of the goods and services they demand, in relation to those being marketed within the ambit and outcome of their budget on specific product (Cherlin, 2002). Family influences the consumption behaviour of its members by learning, using value, listening and watching parents' consumption decisions being made within the context of the family setting as a unit. Spouses exert different degrees of influences as they pass through different stages of the decision-making process. Thus, movement from information search to final decision may be minimal in case of goods and services but more profound for goods and services that are risky or have high involvement for the family (Raffé, 2004).

The psychology of the consumer is influenced

by his environment for example, culture, family, sign, media which is expressed by the behaviour/ attitude in thought, feelings and resource selection. The laws and public initiatives are made to persuade consumers to become more knowledgeable about personal finance decisions, become more financially competent in response to broad and complex societal trends. This involves raising awareness and self-conception in the context of the social environment they live in. The interactions of the consumer inner and social environment leads to the formation of personal values and standards that guides human decisions and choices (Degenova, 2001).

Influence of the family financial status on the acquisition of household appliance have been created and supported by policy makers, businesses and communities. Through the literary educational institutions knowledge of the relationship between market specific variables and acquisition order could be used in formulating price support levels at various markets.

All consumers are subject to influence of several factors and these have an important bearing to their behaviour. The family as well as economic and cultural factors together constitutes consumer's environment. Today consumers are conscious of their rights; and want to be assured at the right quality of goods being made available at the right place and at the right time (Boschoff, Lamb, Hair, Micheal, Terblonche, and Krlopper, 2010).

The consumption patterns of consumers vary depending on the factors that are both internal and external to the individual. Consumer acquisition priority of household appliance is dedicted by varying factors that influence the behaviour of the consumer. Hitherto behaviour if not well guided will become a major concern to the general welfare of the immediate family of the individual. In recent past, consumer acquisition of goods and services has been threatened by various problem issues, such as recession, high inflation and others. These issues have directly or indirectly shaped consumption and expenditure patterns of individuals/families and the decision prowess of the consumers based on family pressure, social expectation and availability of funds. Hence, the study evaluated the influence of knowledge and other decision variables of consumers in the acquisition household appliance, in the FCT.

Hence, the broad objective of the study was to determine the influence of knowledge and other decision variables in the acquisition of household appliance by civil servants and self-employed. Specifically the study determined the influence of social class income, family life cycle and education

as well as the differences between males and females on the extend of knowledge in research in the priority acquisition of household appliance.

## MATERIALS AND METHODS

The research design adopted for this study was the descriptive survey research design. The study was carried out in Abuja the administrative Centre of the Nigerian nation and a representative of people from various segment of the Federation. The Federal Secretariat houses the employee, ministries and parastatals of the Federal Government of Nigeria. The inhabitants were mostly civil servants. It is located in the central cadastral zone of Garki district. Garki is the principal business district in Abuja. The secretariat lies between latitude  $9.066^{\circ}$  north of the equator and longitude  $7.4833^{\circ}$  east of Greenwich meridian the mean maximum and minimum temperature were  $33.34^{\circ}\text{C}$  and  $22.25^{\circ}\text{C}$  respectively. The respondents were fairly educated and employed, therefore it is reasonable to assume that employment and education of the respondents exposes them to acquire financial knowledge and information and to form personality through interaction with colleagues and other people.

The federal secretariat which houses most of the ministries and parastatals of the federal government and employee as civil servants was selected for the study. The convenience sampling technique was adopted for the distribution of questionnaire.

Two hundred (200) respondents were surveyed and used for the analysis of the study.

A forty nine (49) item structured questionnaire covering three (3) sections was formulated. Section A comprise nine (9) questions that provided information about the background of the respondent. Section B comprise twelve (12) which provided information about the decision-making process of the consumers.

Questions were formulated and given to three (3) professional who made contributions and vetted the instrument.

The reliability of the instrument was determined at 0.832 Chromback Alpha and ANOVA was used to determine the degree of difference in the extent of knowledge/information in the acquisition priority of household appliance to indicate sound priority acquisition on the account of consumers' social class, income, family life cycle and educational qualification of respondents at 0.05 alpha significance. A summary of descriptive statistics as well as ANOVA statistical data were reported.

**RESULTS AND DISCUSSION**

**Table 1.**Frequency distribution of respondents showing social class, income, family lifecycle and educational qualification.

Social class	Frequency	Percentage
<b>Male</b>		
Lower class	10	10
Middle class	44	44
Upper class	11	11
Elite	0	0
<b>Female</b>		
Lower class	9	9
Middle class	23	23
Upper class	3	3
Elite	0	0
<b>Income</b>		
<b>Male</b>		
₦18,000-₦50,000	10	10
₦51,000-₦100,000	12	12
₦101,000-₦150,000	7	7
₦151,000-₦200,000	12	12
Above ₦200,000	24	24
<b>Female</b>		
₦18,000-₦50,000	11	11
₦51,000-₦100,000	1	1
₦101,000-₦150,000	4	4
₦151,000-₦200,000	11	11
Above ₦200,000	8	8
<b>Family lifecycle</b>		
<b>Male</b>		
Establishing stage	6	6
Expanding stage	43	43
Contracting stage	16	16
<b>Female</b>		
Establishing stage	6	6
Expanding stage	25	25
Contracting stage	4	4
<b>Educational qualification</b>		
<b>Male</b>		
Ph. D	5	5
M.ed/MA/M.Sc	14	14
BA/B.Sc/B.Ed/HND	41	41
NCE/ND	4	4
SSCE	1	1
FSLC	0	0
Non formal education	0	0
<b>Female</b>		
Ph. D	0	0
M.ed/MA/M.Sc	9	9
BA/B.Sc/B.Ed/HND	22	22
NCE/ND	4	4
SSCE	0	0
FSLC	0	0
Non formal education	0	0

Frequency distribution of demographic variable: and social class, monthly income level, family life cycle and educational qualification, showed that social class of the male were mostly middle class, forty-four percent (44%). Similarly most female, twenty-three percent (23%) belong to the middle class. Upper class for male, eleven percent (11%) and for male and lower class ten percent (10%), while the middle class for female lower is nine percent (9%) and upper class for female is three percent (3%).

The monthly income of the male respondents were above two hundred thousand Naira (₦200,000) twenty-five (25%), ₦151,000-200,000 twelve percent (12%), ₦51,000-100,000 twelve percent (12%), ₦18,000-50,000 ten percent (10%) and ₦101,000-150,000 seven percent (7%). The female respondents were higher at ₦151,000 -200,000 eleven percent (11%), ₦18,000-50,000 eleven percent (11%), above N200,000 eight percent (8%) and ₦101,000-150,000 four percent (4%).

The family lifecycle of the respondents (male and female) were higher at expanding stage forty-three percent (43%) and twenty-five percent (25%) respectively. The contracting stage was sixteen percent (16%) and for the female establishing stage sixpercent (6%) for the male respondent (6%) and contracting stage four percent (4%).

The educational qualification of the male respondents were BA/B.Sc/B.Ed/HND forty-one percent (41%), M.Ed/MA/M.Sc fourteen percent (14%), Ph.D five percent (5%), N.C.E./ND four percent (4%) while for the female respondents were BA/B.Sc/B.Ed/HND twenty-two percent (22%), M.Ed/MA/M.Sc nine percent (%) and N.C.E. four percent (4%).

Hypothesis 1: There is no significant difference in the extent of knowledge/information in the acquisition priority of household appliance indicating sound priority acquisition on the account of respondents' social class.

**Table 2:** One way analysis of variance according to social class of respondent

Social Class	N	Mean	Std. Deviation	Sig.
Lower Class	33	114.6970	11.80171	0.00
Middle Class	133	112.1128	13.30052	
Upper Class	30	116.0667	16.30725	
Elite	4	131.0000	.81650	
Total	200	113.5100	13.68122	

The test for ANOVA descriptive statistics revealed that significant difference exists among respondents regarding the extent of knowledge on the acquisition of household appliance indicating sound acquisition priority on the account of their social class. This is

because the P value of 0.025 is lower than the alpha level of significance and the mean values of 114.6970; 112.1128; 116.0667; and 131.1000 for social class of lower, middle, upper and elite respectively. Therefore, the null hypothesis is rejected.

Hypothesis 2: There is no significant difference in the extent of knowledge/information in the acquisition priority of household appliance indicating sound priority acquisition on the account of respondents' income.

Table 3: One way analysis of variance according to income of respondent

Income	N	Mean	Std. Deviation	Sig.
₦18,000-₦50,000	43	119.1395	10.45530	.000
₦51,000-₦100,000	24	110.0000	12.37810	
₦101,000-₦150,000	20	97.4000	11.53667	
₦151,000-₦200,000	49	108.1429	14.70969	
Above ₦200,000	64	115.2813	13.67128	
Total	200	111.9400	14.31401	

The test of ANOVA descriptive statistics on the extent of knowledge/information on the acquisition of household appliance by respondents an account of their income, revealed the mean level of 119.1395; 110.0000; 97.4000; 108.1429 and 115.2813 at income levels N18,000.00 – N50,000.00; - N51,000 – ₦100,000.00; ₦101,000.00; - ₦150,000.00; ₦151,000.00 – ₦200,000.00 and ₦200,000.00 and above respectively reveal that the calculated P value of 0.000 is lower than the 0.05 alpha level of significance. Hence, significant difference exists indicating sound acquisition priority an account of their income. Therefore, the null hypotheses is rejected.

Hypothesis 3: There is no significant difference in the extent of knowledge/information in the acquisition priority of household appliance indicating sound priority acquisition on the account of respondents' family life-cycle.

Table 4: One way analysis of variance according to family life cycle of respondents

Family life cycle	N	Mean	Std. Deviation	Sig.
Establishing stage	34	112.6471	17.12323	.801
Expanding stage	126	114.5238	14.55951	
Contrasting stage	40	114.5000	13.88968	
Total	200	114.2000	14.83511	

Details of ANOVA descriptive statistic regarding the extent of knowledge/information on the acquisition of home appliance of respondents on account of

their family life-cycle revealed that significant difference does not exist. This is because the mean values of 112.6471; 114.5238; and 114.5000 for establishing stage, expanding stage and contracting stage respectively and the calculated P value of .801 is higher than the 0.05 alpha level of significance. Therefore, the null hypotheses is accepted and retained.

Hypothesis 4: There is no significant difference in the extent of knowledge/information in the acquisition priority of household appliance indicating sound priority acquisition on the account of respondents' educational qualification.

Table 5: One way analysis of variance according to educational qualification of respondents

Educational qualification	N	Mean	Std. Deviation	Sig.
Ph. D	6	116.6667	16.29315	.130
M.ed/MA/M.Sc	46	109.6522	15.23186	
BA/B.Sc/B.Ed/HND	128	113.4297	13.28648	
NCE/ND	16	108.5000	14.38054	
SSCE	4	100.2500	12.28481	
Total	200	112.0000	14.02367	

ANOVA descriptive statistic in respect of the extent of knowledge/information on the acquisition of household appliance indicating sound priority acquisition of the respondent showed that on account of their educational qualifications significant difference exists among the respondents. This is because the mean values of 116.667; 109.6562; 113.4297; 108.3000 and 100.2506 for educational levels Ph.D; master degree, Bachelor degree and HND degree, NCE/ND and SSCE qualification respectively. The calculated P values of 1130 is higher than the 0.05 alpha level of significance. Therefore, the Null hypothesis is retained.

Hypothesis 5: Difference between males and female in the extent of knowledge on the acquisition of household appliance indicating sound priority acquisition on account of research.

Two (2) sample t-test of knowledge indicating sound priority acquisition on the extend of research by males[sig. 0.000] and females[sig. 0.017] at t-critical value of 1.96 showed that there is no significant difference between does who make research and those who donot make research before purchase of household appliances.

Social class and income of respondents indicated that significant difference exists in the extent to which knowledge/information influence their

acquisition of household appliance. It appears that those with higher status and income lack enough time to seek knowledge that will guarantee sound priority acquisition engagement. Consumers go for these products based on brand names instead of searching for information regarding their durability and ease of use. Ajzan (2001), pointed out that consumer information services is vital to household acquisition which involves having good knowledge/information of the commodity to ensure suitability for its intended use. It seem, however, according to Tianet al.,(2001), that the quest for social factor is a motivation for purchase used to impress others. Schiffman and Kanuk(2009), also noted that higher price indicates affordability and status while emotional aspect of the decision making become pertinent on the decision making process and consumption patterns.

Family life cycle and level of educational qualification revealed that there is no significant different in the extent to which knowledge influence sound priority acquisition of household appliance of the respondents. Armould, *et al.*,(2004), opined that because of the dynamic sense by which family interacts to satisfy their personal and mutual needs, the buyer behaviour is strongly influenced by members of the family. Raffe (2004), explained further that the family influence consumer behaviours by learning, listening and watching. Therefore, consumption decisions are made within the context of the family setting as a unit.

Overall, males and females donot differ among those who do research and those who donot do research about the household appliance before acquisition to indicate sound priority acquisition. This implies that generally both male and female consumers donot of necessity make research before purchase of household appliance. However, the few females who make research before acquisition seem to have higher knowledge about the household appliance than those who do not.

## CONCLUSION

The study has shown that consumers of higher social class and income go for brand names instead of going out to search for knowledge and information about the product to ensure durability and suitability of the appliance for its intended use. This could be because they lacked time and/or they want to impress others rather than take time to seek knowledge. Also, social class and income does not have any influence on the priority acquisition on consumer in the purchase of household appliance.

Family life-cycle and educational qualification influence the extent of knowledge for sound priority acquisition because consumer decision are usually made within the context of the family setting and that consumer behaviour in the family are influenced by learning, listening and watching.

It is recommended that The Nigerian consumers who belong to high social class and income do not make time to seek knowledge from various sources to enable them make sound priority acquisition of household appliance. Therefore it is recommended that consumers of high social class and income can delegate assistants/associates to seek for adequate knowledge or information on their behalf before committing themselves to the purchase of household appliance. This would ensure they derive value and satisfaction for the money they spend.

Similarly, consumers of higher social class and income may avail themselves to internet technology within their comfort zones to access information about household appliance before purchase of the product in order to make comparative assessment before purchase of household appliance.

Since the study was limited to the Federal Secretariat Complex, Abuja most of whom are civil servants, it is recommended that the study should be replicated on a wider audience of consumers of various professional background. This will enable expert to have accurate information of the status quo in the nation.

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