

# **Determinants of Green Purchase Intentions among University of Benin Students using Energy-Saving Electrical Appliances**

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## **Abstract**

*The study sought to ascertain the determinants of purchase intentions of energy-saving electrical appliances among the students. The study employed a survey research design. The population of the study consists of all undergraduate students full-time students in the undergraduate programmes at University of Benin. The questionnaire was the main research instrument and it was administered to the students. The collected data were analysed using descriptive and inferential statistics through SPSS 22.0. It was revealed that concern for the environment; expected benefit and disposition were positive and significant determinants of green purchase intentions towards energy-saving electrical appliances. Green information availability had a negative and significant influence on purchase intentions, while purchase controllability had a positive and non-significant influence on purchase intentions. It was concluded that the way and manner in which attention is paid by green producers to these determinants will go a long way in determining the purchase intentions. It was further recommended among others that green producers and government agencies alike should ensure media publicity on green information and environmental sustainability.*

**Keywords:** Concern for the environment, Energy-saving electrical appliance, Green marketing, Green appliances, Intention to buy.

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## INTRODUCTION

Going green is an internationally recommended approach, and nations are expected to provide the ecosystem with proper care. Studies suggest that green marketing can improve sustainability practices (Alufir, 2020, Fatoki, 2020, Kaador, 2020). As an option, green technologies are considered since they can promote economic expansion and environmental sustainability. The expansion of home electronic devices has resulted in enormous energy usage, which has harm to the environment (Hua & Wang, 2019). Encouragement of the usage of energy-saving electrical appliances can assist in alleviating the prevailing sad reality in light of critical environmental and sustainability challenges. In the Nigerian appliances industry, energy-saving appliances are in a growth stage. Consumer devices held 16.7% of the market dominance in Nigeria at the end of 2021, and the figure is expected to rise to 23.8% by 2025 (Statista 2022).

Tertiary students constitute a large proportion of consumers of energy-saving electrical appliances. The students live in hostels both within and outside the school environment. They utilise electrical appliances similarly to other members of the public (Cotton, Shiel & Paco, 2016). Unlike other members of the public, undergraduate students constitute a young generation of users of energy-saving electrical appliances and their interest in the purchase of such appliances will go a long way in stimulating demand for the purchase of the appliances. Energy-saving electrical appliances can reduce the cost of using energy thereby saving the amount of money spent on them (Cotton, *et al.*, 2016). They have far-reaching societal implications. They reduce heat emissions from usage and improve health conditions (DeWaters, & Powers, 2013). This is unlike non-energy-saving electrical appliances. The student's intention to buy energy-saving electrical devices can depend on a variety of factors. The students' concern for the environment, their exposure to information on green appliances, disposition, and purchase control can be among the factors.

Considering the age of the students on campuses, they constitute young consumers of energy-saving electrical appliances hence they hold the future in the purchase of energy-saving appliances as well as the achievement of green marketing goals. In the next decades, these young students will constitute the major decision-makers in their respective households. Also, considering the growth of green marketing concepts among nations around the world, and the need to create more awareness of the consumption of green appliances for future sustainability (Gbadeyan&Omolekan, 2015; Ayodele, Panama & Akemu, 2017), examining the students' purchase intention towards energy-saving electrical appliances will help ascertain whether the green marketing goal will be achieved in the next decades. Tertiary students are also interested in their environment. They recognise the fact that having concern for their environment can help improve society at large. They utilise electrical appliances such

as energy-saving fans, light balls, refrigerators and moveable mini fans. As consumers, they often decide to buy appliances that will provide value for their money. They utilise these appliances because of the expected benefits. Consumers are more likely to patronize appliances that have performance that aligns with or exceed their expectations. There is a need to ascertain whether green appliances will provide the expected benefits from the consumers' purchase. While some of them are informed about energy-saving electrical appliances, others are yet to gain enough information. Consequently, their disposition towards energy-saving appliances is unstable. There is thus a need to examine these antecedents among the students. Surprisingly, there is a paucity of studies that go in this direction. Previous studies on the discourse were conducted outside Nigeria (Cheema, Durrani, Khokkar & Pasha, 2015; Hua, & Wang, 2019; Fatoki, 2020). There is thus a need for studies that are domiciled in Nigeria. This study seeks to close the above gap by examining the determinants of purchase intentions of energy-saving electrical appliances among these students.

### **Objectives of the Study**

The main objective of the study is to ascertain the determinants of green purchase intentions among University of Benin Students. The specific objectives are to:

1. determine the effect of concern for the environment on the intention to buy energy-saving electrical appliances;
2. ascertain the effect of expected benefits on intention to buy energy-saving electrical appliances;
3. evaluate the relationship between green information availability and intention to buy energy-saving electrical appliances;
4. determine the relationship between purchase controllability and intention to buy energy-saving electrical appliances; and
5. determine the effect of disposition and intention to buy energy-saving electrical appliances.

## **LITERATURE REVIEW**

### **Green Purchase Intentions**

Green purchasing denotes the practice of making ecologically beneficial purchases while avoiding those that damage the ecosystem is known as (Fatoki, 2020). Consumers' propensity to buy eco-friendly appliances is indicated by their green purchase intentions. Purchase intention is the stage where the consumer makes up his/her mind to buy the appliances or refrain from doing so. Purchase intention may be changed due to some factors such as appliances unavailability, change in price, or lack of interest. It is a sophisticated demonstration of ethical outcomes that fall under the

category of environmentally accountable action (Jaiswal & Kant, 2018). A firm desire to buy a green appliances could result in its real purchase and use.

### **Determinants of Green Purchase Intentions**

Green purchase intentions can be influenced by a set of factors that include concern for environment, expected benefits of the product, green information availability, purchase controllability and disposition towards the appliances (Hua & Wang, 2019; Fatoki, 2020). These factors are discussed below.

#### **Concern for the Environment**

The degree that an individual becomes knowledgeable of environmental issues encourages attempts to address them or exhibits readiness to independently assist in finding answers to the issues characterises the individual's concern for the environment (Fatoki, 2020). It is the desire to contribute significantly to green efforts. As revealed by Li et al (2019) a positive relationship exists between environmental concern and the tendency to buy green appliances awareness and the propensity to buy green appliances. This suggests that eco-friendly people are more likely to spend their resources on green appliances.

Due to increased consumer knowledge of green issues, people are transitioning to more green initiatives. Regarding their decision to purchase green appliances, their consideration of the environment can have a significant impact on their decision to go green (Alufairi, 2020). Nguyen and Nguyen (2020) reveal that organisations that put emphasis on green appliances influence consumers' decisions to buy the appliances. They suggest that green organisations should disclose their green policies to the public for increased appliances patronage. Zhang et al (2020) also agree that people behave environmentally because they want to address environmental issues.

*H<sub>1</sub>: There is no significant relationship between concern for the environment and the intention to buy energy-saving electrical appliances among University of Benin students.*

#### **Expected Benefits**

The expected benefit is the belief that a appliances will perform excellently as intended (Hua & Wang, 2019). Expected benefits can depend on the user's understanding of how to operate the energy-saving appliance. The perceived usability thus denotes the complexity of using the new appliance. If it is less complex and easy to use, the public view of it can be enhanced. In this case, performance expectancy is linked to the advantages of employing energy-saving electrical appliances. The goal of the appliance is to lower personal power usage to save resources and safeguard the surrounding. As a result, it is hypothesised that consumers will buy energy-saving

devices since their utility costs will be lowered and their living experience will be enhanced.

*H<sub>2</sub>: There is no significant relationship between expected benefits and the intention to buy energy-saving electrical appliances among University of Benin students.*

### **Green Information Availability**

Insufficient understanding is a barrier to users adopting green appliances (Wang et al., 2014). This is because the dissemination of knowledge about the green appliances can have a favourable impact on consumers' behavioural intentions regarding the appliances. Similarly, Qader and Zainuddin (2011) reveal that the public relations activities of a green organisation demonstrate their willingness to share information on the extent to which they have gone green. They argue that such publications can stimulate consumers' intentions to buy their appliances. This is so emphasised by Chen, et al (2018) that making information ready on social media is a way of creating awareness of green efforts.

*H<sub>3</sub>: There is no significant relationship between green information availability and the intention to buy energy-saving electrical appliance among University of Benin students.*

### **Purchase Controllability**

Purchase controllability is the consumer's ability to make independent decisions about what to buy and use (Ahmed, 2021). The individual can control resources that are needed in the purchase of the appliances. It requires control over money, activity, and time. When the demand for green appliances becomes too great and goes beyond what the consumers can afford, they can stop buying them or switch to substitute appliances. There is a high tendency that consumers will buy the appliances that they have control over than those that they cannot control.

*H<sub>4</sub>: There is no significant relationship between purchase controllability and the intention to buy energy-saving electrical appliance among University of Benin students.*

### **Disposition towards Appliances**

Disposition connotes how favourably or unfavourably an individual is exposed to a given event. The opinions consumers develop about a particular appliances category can affect their behaviours (Odia & Dania, 2017). Consumers that have a positive perception or predisposition concerning a given appliances are more readily available to buy the particular appliances provided that the appliances satisfies their wants (Odia & Dania, 2017; Fatoki, 2020). When there are favourable opinions about green items, green consumer behaviour is increased because the person feels as though they are

supporting a social purpose (Groening et al, 2018). Odia and Daniah (2017) reveal that consumers' belief in green items has positive and significant effect on green purchases. This aligns with Akroush, Zuriekat, Jabali, and Asfour (2019). They found that attitudes concerning a appliances have a favourable impact on consumers' intentions to buy. It is therefore proposed that:

*H<sub>5</sub>: There is no significant relationship between disposition and the intention to buy energy-saving electrical appliance among University of Benin students.*

### **Theoretical Framework**

The study is anchored on two key theories that explain why consumers behave the way they do. They include technology acceptance model, and theory of planned behaviour. They are discussed below.

#### ***Technology Acceptance Model***

Davis (1989) introduced the technology acceptance model (TAM). The central goal of the model is to explain significant and largely exogenous factors that affect people's views regarding supporting innovation. Davis contends that two belief factors: perceived usefulness and ease of use determine a person's outlook on innovation, arguing that the disposition could well influence intentions or actions (Hua & Wang, 2019). This suggests that technology or innovation creates a link between disposition and how the appliances can be operated and used.

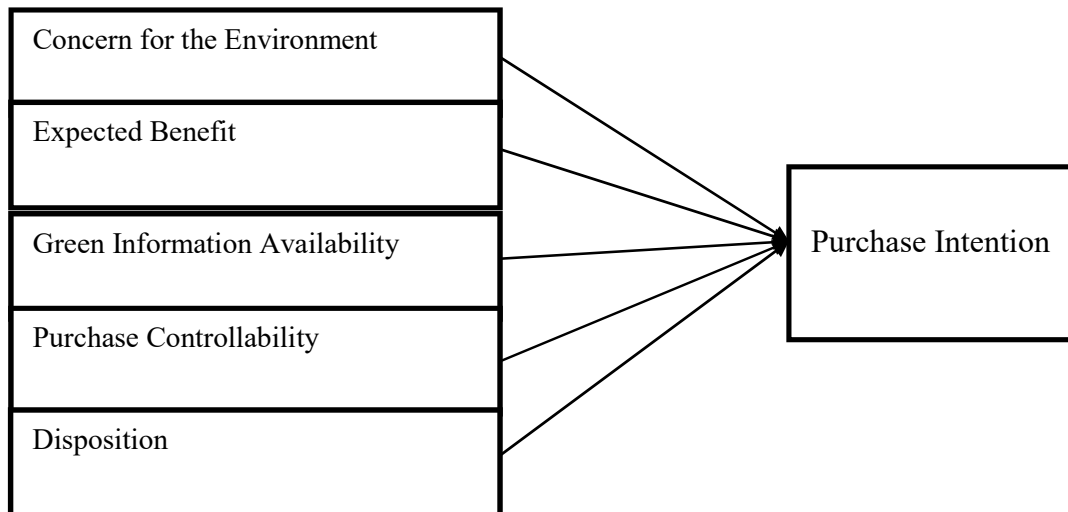
#### ***Theory of Planned Behavior***

The Theory of Planned Behavior (TPB) was developed by Ajzen (1991). As explained, consumers weigh the costs and advantages before making decisions because they behave rationally toward a particular interest. The TPB justifies the current study as it bases consumers' decisions to buy appliances on special consideration of certain conditions. As identified in this study, the determinants of green purchase intentions of energy-saving electrical appliances include concern for the environment, availability of green information, expected benefit, purchase controllability and disposition.

### **Research Model**

The determinants of green purchase intentions are represented in Figure 1 below

*Figure 1: Determinants of green purchase intentions*



*Source: Researcher's construction (2022)*

As shown in Figure 1, green purchase intentions can be influenced by concern for the environment, expected benefit, green information availability, purchase controllability and disposition. It aligns with the theory of planned behaviour and the technology acceptance model. While the technology acceptance model relates to the way in which energy-saving electrical appliances are accepted or bought, the theory of planned behaviour points out that consumers do not behave irrationally, instead the consumers would decide to buy a green appliances after undergoing a set of mental processes. It also aligns with previous studies on the discourse.

## **METHODOLOGY**

This study employed a survey research design. A survey research design is used when a study seeks to study the characteristics of a given population (Mccombes, 2019). The type of survey research design that was used in the current study is a cross-sectional survey. Through this design, it becomes easy to relate effectively with the respondents, which enhances the accessibility to data collection from the respondents.

The population of the study consists of all full-time students in the undergraduate programmes at the University of Benin. It comprises students from various faculties. University students were used because they are young consumers of energy-saving electrical appliances (Fatoki, 2020). To avoid bias in the selection of students across the faculties, purposive sampling was used to select the class representatives in full-time programmes and from each of the departments that made up the faculties. The

class representatives were selected across fourteen faculties. See appendix A for the distribution. Consequently, 312 class representatives were selected for the study.

The source of data was primary and the research instrument was a questionnaire. It was closed-ended and utilised five-point Likert-type scales in the order of Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD) and weight 5, 4, 3, 2, and 1 respectively. The questionnaire comprised two sections: demographics and statements about the variables. The dependent variable, purchase intentions was measured by a 4-item 5-point scale developed by Fatoki (2020) and Hua and Hang (2019). The independent variables were measured by a 20-item 5-point scale from sources such as Fatoki, (2020), Shalander and Sharma (2019), and Akroush et al (2019).

To ascertain the reliability of the research instrument, a pilot test was conducted in which 20 copies of the questionnaire were administered to some students of the University of Benin. The data were further coded and tested for reliability using the Cronbach alpha reliability test. The purpose was to ensure internal consistency.

**Table 1: Cronbach Alpha Values**

S/N	Variables	Number of items	Cronbach alpha value
1	Concern for the environment	4	0.822
2	Expected benefit	4	0.761
3	Green information availability	4	0.710
4	Purchase controllability	4	0.809
5	Disposition	4	0.899
6	Purchase Intention	4	0.758

Source: SPSS output (2022)

Table 1 displays the Cronbach alpha values. The items had values higher than 70% indicating that the questionnaire items are reliable for the study. The questionnaire was administered to the students individually. The collected data were analysed using descriptive and inferential statistics through SPSS 22.0. The descriptive statistics include mean and percentage, while the inferential statistics include coefficients, t-tests and analysis of variance.

### **Model Specification**

The regression model for the study was specified as:

$$PIT = f(CFE, EXB, GIA, PUC, DIP) \dots\dots\dots (1)$$

$$PIT = \beta_0 + \beta_1 CFE + \beta_2 EXB + \beta_3 GIA + \beta_4 PUC + \beta_5 DIP + e \dots\dots\dots (2)$$

The operational definitions are:

- PIT = Purchase intention,
- CFE = Concern for the environment,
- EXB = Expected benefit,
- GIA = Green information availability,
- PUC = Purchase controllability,
- DIP = Disposition and
- e = error term.

The a priori expectations are stated as  $\beta_1, \beta_2, \beta_3, \beta_4,$  and  $\beta_5 > 0$ .

**RESULTS AND DISCUSSION**

Out of the 312 copies of the questionnaire administered, 278 (89%) copies were retrieved, while 34(11%) copies were invalid either because they were poorly filled or they were displaced by the respondents. Consequently, 278 questionnaires were found valid for further processing. Table 2 shows the demographic characteristics of the respondents.

**Table 2: Demographic characteristics of the respondents**

S/N	Variables	Attributes	Frequency	Percentage %
1	Sex	Female	138	49.64
		Male	140	50.36
		Total	278	100.00
2	Age	16 – 20	81	29.13
		21-25	120	43.17
		26 and above	77	27.70
		Total	278	100.00
3	Level	100L	66	23.74
		200L	71	25.54
		300L	76	27.34
		400L	65	23.38
		Total	278	100.00
4	Frequency of purchase of	Always	113	40.65

S/N	Variables	Attributes	Frequency	Percentage %
	energy-saving devices	Occasionally	109	39.21
		Never	56	20.14
		Total	278	100.00

Table 2 shows that there was a high proportion of females (138, 49.64%) and males (140, 50.36%) indicating adequate inclusiveness. The majority of the respondents were 21 to 25 years old (120, 43.17%). This was followed by those at 16 to 20 years old (81, 29.13%). The last presentation was those at 26 years and above (77, 27.70%). The distribution indicates that the respondents were young consumers of energy-saving appliances and at this age, their perception of the appliances can affect their future purchases. The respondents were adequately distributed across the 100 to 400 levels. However, the students in the 200 (71, 25.54%) and 300 (76, 27.34%) levels participated more in the study. Lastly, Table 2 shows that the majority of the respondents buy energy-saving appliances always (113, 40.65%). 109 (39.21%) buy them occasionally, while 56(20.14%) do not buy energy saving appliances. This indicates that the consumption of energy-saving appliances is on the increase among students.

**Table 3: Description of the variables**

S/N	Statement	Mean	Std. Dev
<b>Purchase Intentions</b>			
01	I will buy energy-saving appliances based on my need for them	3.23	.93
02	I have plans of buying energy-saving electrical appliances	3.40	1.09
03	I will use more energy-saving devices than other items in future	3.31	.94
04	My desire to buy more energy-saving electrical appliances in future is because they help to preserve the environment	3.36	1.04
<i>Grand Mean = 3.33</i>			
<b>Concern for the environment</b>			
05	I have an important role to play in improving my environment	3.61	.90
06	Issues regarding the poor environment have increased lately	3.35	.94
07	When buying electrical appliances I consider their environmental effect	3.35	1.04
08	Keeping the environment safe through the electrical appliances I buy and use will help to achieve sustainability	3.11	1.09
<i>Grand Mean = 3.36</i>			

S/N	Statement	Mean	Std. Dev
<b>Expected Benefits</b>			
09	Energy-saving appliances provide more value for my money	3.32	.99
10	Energy-saving appliances last longer	2.36	1.01
11	Energy-saving appliances are in alignment with what I want	3.60	.89
12	I have less worry about my health when I use energy-saving electrical appliances	3.20	1.00
<i>Grand Mean = 3.12</i>			
<b>Green Information Availability</b>			
13	It is often advertised that the basis for energy-saving electrical appliance is to improve climate change	2.56	1.12
14	I feel that more information on the importance of green appliances needs to be provided to the public	3.36	1.04
15	I have limited knowledge of green appliances	2.33	1.11
16	There is enough information on social media on the importance of environmental preservation	2.68	1.05
<i>Grand Mean = 2.73</i>			
<b>Purchase Controllability</b>			
17	It is not all energy-saving electrical appliances that I can buy	2.01	.92
18	Energy-saving appliances are too expensive for me	3.33	.94
19	I often seek testimonies from others before deciding to buy an energy-saving electrical appliances	2.20	1.03
20	I will buy energy-saving electrical appliances if they can satisfy me	2.35	.05
<i>Grand Mean = 2.47</i>			
<b>Disposition</b>			
21	Energy-saving electrical appliances are favourable to me	3.60	1.39
22	Energy-saving electrical appliances provide comfort for me	3.23	.96
23	Energy-saving electrical appliances are pleasant	3.45	1.17
24	I derive much pleasure from energy-saving electrical appliances	2.49	1.28
<i>Grand Mean = 3.19</i>			

Table 3 shows the description of purchase intentions. The majority of the respondents agreed with the statements on purchase intentions. The mean values of the statements were all greater than 3.0 which was the mean criterion. The grand mean of 3.33 implied that the students have a high purchase intention towards energy-saving electrical appliances. Table 3 shows the description of concern for the environment. The majority

of the respondents agreed with the statements. The grand mean value of 3.36 which is higher than the criterion mean of 3.0 indicates that the student's concern for the environment is high. This implied that the students highly rated their concern for the environment. Table 3 shows the description of the expected benefits. The majority of the respondents agreed to three statements with mean values of 3.32, 3.60 and 3.20. They did not agree that energy-saving devices last longer. The grand mean value of 3.12 indicated that they rated their expected benefits in consuming energy-saving electrical appliances as high. Table 3 shows the description of green information availability. As indicated, the respondents disagreed with three statements on green information availability. This was indicated by the mean values of 2.56, 2.33, and 2.68. The student however agreed that more information on the importance of green appliances needed to be available to the public (Mean = 3.36). The grand mean value of 2.73 indicated that the respondents' evaluation of green information availability was low. Table 3 shows the description of purchase controllability. The majority of the respondents disagreed with the statements and this was indicated by the mean values of 2.01, 2.20, and 2.35. They also agreed that they would buy energy-saving electrical appliances if they had the money to do so. The grand mean value of 2.47 indicated that they had less ratings on purchase controllability. Table 3 shows the respondents' description of disposition. The majority of the respondents agreed to three statements with mean values of 3.60, 3.23 and 3.45. They also indicated that they derived pleasure from using energy-saving electrical appliances (2.49). The grand mean value of 3.19 indicated that they rated disposition as high.

**Table 4: Regression results**

Model	Unstandardized Coefficients		Stand. Coefficient	t	Sig.	Decision
	B	Std. Error	Beta			
(Constant)	.933	.565		1.651	.100	
Concern for the environment CFE	.361	.080	.261	4.514	.000	Reject Ho
Expected benefit EXB	.265	.081	.158	3.282	.001	Reject Ho
Green information availability GIA	-.303	.061	-.195	-4.991	.000	Reject Ho
Purchase controllability PUC	.114	.117	.073	.977	.330	Accept Ho
Disposition DIP	.659	.043	.609	15.206	.000	Reject Ho
R = 0.883; R-Square = 0.780; Adjusted R-Square = 0.776; F-Statistic = 169.651; F-Statistic (Prob.) = 0.000 Number of Observation = 278 Dependent Variable: Purchase Intentions (PIT)						

Table 4 revealed that three variables had a positive and significant relationship with purchase intentions. They include concern for the environment ( $\beta = 0.361$ ,  $p = 0.00$ ), and expected benefit ( $\beta = 0.265$ ,  $p = 0.001$ ). Table 4 also shows that purchase controllability ( $\beta = 0.114$ ,  $p = 0.330$ ) had a positive but non-significant relationship with purchase intentions, while green information availability ( $\beta = -0.303$ ,  $p = 0.000$ ) had a negative and significant relationship with purchase intentions. The regression results demonstrated that when the independent variables were regressed on the dependent variable, the R-value was 0.883 and an ( $R^2$ ) value of 0.780 was obtained. The R-value indicated that the independent variables had 0.883 relationships with purchase intentions. This signified a strong relationship. The  $R^2$  value of 0.780 in the regression was the strength of the model. It indicated the goodness of fit of the model and the effectiveness of the model in explaining the behaviour of the variables (concern for the environment, expected benefits, green information availability, purchase controllability, and disposition) of consumers towards energy-saving appliances in Edo State. It specifically demonstrated that the combined variables of concern for the environment, expected benefits, green information availability, purchase controllability, and

disposition in the regression model predicted and explained 78% of the systematic variation in the purchase intentions towards energy-saving appliances among university of Benin students, while other variables (s) not included in the model captured 22% variation in the purchase intentions among the university of Benin students. The F statistic ( $F = 169.651$ ;  $p = 0.000$ ) indicated that the independent variables were significant determinants of purchase intentions towards energy-saving electrical appliances among university of Benin students as a group.

### **Discussion of Findings**

The first objective was to determine the effect of concern for the environment on the intention to buy energy-saving electrical appliance among university of Benin students. Concern for the environment had a positive and significant effect on the intention to buy the energy-saving electrical appliance. Concern for the environment is an important responsibility for everybody. This is because the issue of a poor environment affects everyone. The actions of one individual can affect another individual positively or negatively and one of the ways to reduce harmful actions about the environment is to consider appliances that improve the environment (Nguyen & Nguyen, 2020). The students have also agreed that when they buy energy-saving electrical appliances, they have consideration for their environment which makes them pursue sustainability. The findings of the study are consistent with Zhang *et al* (2020) that people buy appliances that show concern for the environment in a bid to solve environmental degradation challenges. It is also consistent with Nguyen and Nguyen (2020) that concern for the environment is significant when considering people's perception of green appliances. It is inconsistent with Hong *et al* (2020) that environmental concern is not a significant factor in the intention to buy environmentally friendly appliances.

The second objective was to ascertain the effect of expected benefits on the intention to buy energy-saving electrical appliance among university of Benin students. It was revealed that the expected benefit had a positive and significant effect on the intention to buy energy-saving electrical appliances. Energy-saving appliances can provide more value for money to the students, and they like using them. The appliances also provide more positive health benefits than non-energy-saving electrical appliances. However, they lack durability. The outcome of the study is consistent with Groening *et al* (2018) that attitude towards green appliances enhances their purchase. It is also consistent with Akroush, *et al* (2019). They found that attitudes towards green appliances have a positive effect on the intention to buy them.

The third objective was to evaluate the relationship between green information availability and the intention to buy energy-saving electrical appliance among university of Benin students. Green information availability was found to have a negative and significant relationship with the intention to buy energy-saving electrical appliances.

The negative relationship was a result of the low level of information available on green efforts. Chen, et al (2018) showed that the media plays a key role in passing out information to the general public on greenness. This implies that if the information is not well passed across, many people will not be aware and they will be reluctant to buy green appliances. The outcome of this study was found to be inconsistent with Qader and Zainud-din (2011) that a significant positive connection existed between promotion and intention to buy green appliances.

The fourth objective was to determine the relationship between purchase controllability and intention to buy energy-saving electrical appliances among university of Benin students. There was a positive non-significant relationship between purchase controllability and intention to buy energy-saving electrical appliances. The students did not have complete control over what they bought as they would buy energy-saving appliances within their financial capacity. This suggests that even where the energy-saving appliances are offered for sale to the student their intention to buy would be determined by their ability to pay. Although it contributed positively to their intention to buy energy-saving appliances, the effect was not significant.

The fifth objective was to determine the effect of disposition and intention to buy energy-saving electrical appliances among university of Benin students. A positive significant effect was found to exist between disposition and intention to buy the electronic appliances. As Royne et al (2016) note, green products have less packaging, and they do not possess harmful substances. This implies that the students are more likely to be predisposed towards the purchase of energy-saving appliances since they meet the student need for lesser energy usage and cost-minimisation. The outcome of the findings is consistent with Odia and Dania (2017) that consumers' attitude towards green products determines their purchases. It is also consistent with Wang, et al (2019) that favourable disposition towards environmentally friendly products will promote consumer purchases.

## **CONCLUSION**

Environmental sustainability is a key millennium development goal and one of the ways of achieving it is through the promotion of green appliances. Green appliances has its root in green marketing. The appliances and sales of energy-saving electrical appliances can help in achieving the organisation's green goals. Also, while pursuing green goals, it is critical to examine the factors that would stimulate consumers' intention to purchase green appliances. Since students in the universities constitute young and potential buyers of energy-saving electrical appliances there was a need to study the determinants of their purchase intentions.

As revealed by the study, concern for the environment, expected benefit, green information availability, purchase controllability and disposition are key determinants of purchase intentions for energy-saving electrical appliances. Theoretically, the study has upheld the theories of planned behaviour and acceptance of the innovation model. It has shown that young consumers will make decisions to buy innovative appliances based on a set of determinants. The way and manner in which attention is paid by green producers to these determinants will go a long way in determining the purchase intentions.

### **RECOMMENDATIONS**

Consumers have the perception that energy-saving appliances are more expensive than other appliances. To correct this perception, the distributors should emphasise the benefits and the reason for the increased cost of appliances or purchase. There also has to be a focus on green promotion. Distributors of energy-saving appliances should consult with the school management for a sensitization programme for the students. In the course of the sensitization program, the students should be enlightened on the benefit of using energy-saving electrical appliances. As revealed by the study, green information availability had been poor and the effect was negative on purchase intentions. To address this situation, a joint effort is needed by government agencies, concerned individuals, producers and the university authority on green policy implementation and the pursuance of the environmental sustainability goals.

Distributors of energy-saving electrical appliances to students should ensure that feedback from the students be channeled to appropriate places and the information be used to modify subsequent deliveries. To satisfy customer expectations and improve the aesthetics of energy-saving electrical appliances, designers and manufacturers need to focus on ease and practicality while creating goods. Long-term manufacture of increasingly sophisticated energy-saving electrical equipment should be encouraged by the government and businesses to lower appliances costs. Reducing the price and making the functioning of items simpler may persuade customers to acquire energy-saving electrical appliances because less technical expertise in operating the appliance will be needed.

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## APPENDIX A

### *Distribution of Undergraduate Student for the 2019/2020 Academic Session in University of Benin*

S/N	Faculty	Departments	Class representatives in 100 to 500 level
1	Agriculture	<ul style="list-style-type: none"> <li>a. Animal Science</li> <li>b. Agric Economics and Extension Services</li> <li>c. Crop Science</li> <li>d. Fisheries</li> <li>e. Food Science</li> <li>f. Social Science</li> </ul>	24
2	Arts	<ul style="list-style-type: none"> <li>a. English and Literature</li> <li>b. Foreign Languages</li> <li>c. Fine and Applied Arts</li> <li>d. Linguistics and African Languages</li> <li>e. Philosophy and Religions</li> <li>f. Theatre Arts and Mass Communication</li> </ul>	24
3	Education	<ul style="list-style-type: none"> <li>a. Adult and Non-formal Education</li> <li>b. Curriculum and Instructional Technology</li> <li>c. Human Kinetics and Sports Science</li> <li>d. Education Evaluation and Counselling Psychology</li> <li>e. Educational Foundations</li> <li>f. Health, Safety and Environmental Education</li> <li>g. Vocation and Technical Education</li> </ul>	28
4	Engineering	<ul style="list-style-type: none"> <li>a. Civil Engineering</li> <li>b. Computer Engineering</li> </ul>	28

<b>S/N</b>	<b>Faculty</b>	<b>Departments</b>	<b>Class representatives in 100 to 500 level</b>
		<ul style="list-style-type: none"> <li>c. Chemical Engineering</li> <li>d. Electrical and Electronics Engineering</li> <li>e. Mechanical Engineering</li> <li>f. Production Engineering</li> <li>g. Petroleum Engineering</li> </ul>	
5	Environmental Sciences	<ul style="list-style-type: none"> <li>a. Architecture</li> <li>b. Geomatics</li> <li>c. Surveying</li> <li>d. Estate Management</li> </ul>	16
6	Law	<ul style="list-style-type: none"> <li>a. Business Law</li> <li>b. Public Law</li> <li>c. Private and property law</li> <li>d. Jurisprudence and International law</li> </ul>	16
7	Life Sciences	<ul style="list-style-type: none"> <li>a. Optometry</li> <li>b. Biochemistry</li> <li>c. Plant Biology and Biotechnology</li> <li>d. Environmental Management and Toxicology</li> </ul>	16
8	Management Sciences	<ul style="list-style-type: none"> <li>a. Accounting</li> <li>b. Actuarial Science</li> <li>c. Business Administration</li> <li>d. Banking and Finance</li> <li>e. Human Resources</li> <li>f. Entrepreneurship</li> <li>g. Marketing</li> <li>h. Insurance</li> </ul>	28
9	Pharmacy	<ul style="list-style-type: none"> <li>a. Clinical Pharmacy &amp; Pharmacy Practice</li> <li>b. Pharmaceutical Microbiology</li> <li>c. Pharmaceutical Chemistry</li> <li>d. Pharmacology</li> <li>e. Pharmacology &amp; Toxicology</li> <li>f. Pharmaceutics &amp; Pharmaceutical Technology</li> </ul>	24
10	Physical Sciences	<ul style="list-style-type: none"> <li>a. Geology</li> <li>b. Physics</li> <li>c. Chemistry</li> <li>d. Mathematics</li> </ul>	20

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S/N	Faculty	Departments	Class representatives in 100 to 500 level
		e. Computer Science	
11	School of Medicine	a. Surgery b. Mental Health c. Morbid Anatomy d. Ophthalmology e. Orthopaedics and Traumatology. f. Verterinary Medicine	24
12	School of Dentistry	a. Preventive Dentistry b. Periodontics Dentistry c. Oral Surgery and Pathology d. Oral Diagnosis and Radiology e. Restorative Dentistry	20
13	School of Basic Medical Sciences	a. Nursing Sciences b. Radiography c. Physiology d. Physiotherapy e. Medical Laboratory Science	20
14	Social Sciences	a. Economics and Statistics b. Public Administration c. Political Science d. Social Works e. Sociology and Anthropology f. Geography and Regional Planning	24
<b>Grand Total</b>			<b>312</b>

Source: <https://alluniversity.com.ng/uniben-faculties-and-departments/>