

Article

Green Consumerism in Young Adults: Attitudes and Awareness in University Students in Johannesburg, South Africa

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Abstract: Unsustainable consumption of resources remains one of the significant environmental issues that prevent the achievement of sustainable development. Green consumerism forms part of the solutions to decrease unsustainable consumption globally. This study aimed to determine the level of awareness and attitudes of students at the University of Johannesburg towards green consumerism. Data was collected using an online questionnaire, and 404 questionnaires were collected and analyzed using descriptive statistical analysis and R-studio, which was used to generate a generalized linear model. There was a significant relationship between income and faculty, showing that these factors influenced the participants' level of awareness regarding green consumerism. The purchasing behavior of the participants is mostly influenced by the price and quality of products instead of the impact of a product on the environment. Overall, this study contributes to the existing literature on green consumerism concerning students. It recommends companies ensure that the prices of eco-friendly products are affordable and that companies should increase their green initiatives so that customers can be more aware of green consumerism.

Keywords: eco-friendly products; generation cohort; purchasing behavior



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1. Introduction

Unsustainable resource consumption is one factor that inhibits the achievement of the 12th Sustainable Development Goal on sustainable consumption and production patterns [1–4]. Both developed and developing countries are involved in unsustainable use of resources for economic growth purposes to improve their populations' quality of life [5]. However, unsustainable consumption harms the environment, exhausts natural resources, and makes it more difficult for the future generation to meet their basic needs [6]. As a result, global sustainable development is compromised; thus, there is a need for practical solutions. Green consumerism is one of the most crucial solutions to unsustainable consumption [7,8]. According to [9], green consumerism and sustainable consumption are often interchanged as similar terms. However, sustainable consumption focuses on using products that have a less negative impact on the environment. In contrast, green consumerism involves products and services, such as recycling, that have less environmental impact.

Green consumerism awareness and concern have significantly increased over the past three decades, particularly in countries with more developed economies like the United States of America and Western Europe [10,11]. Green consumerism is choosing goods and services that have minimal damage to people, animals, and the environment [12]. It involves environmentally friendly production and packaging, energy conservation, waste minimization, recycling, and social conduct [13].

Customers' behavior has altered over the past few decades due to growing environmental concerns to the extent that consumers are encouraged to change their purchasing behavior by using environmentally friendly alternatives [14,15]. Due to this, more and more consumers are searching for green products and are willing to pay more for them [16].

Customers who consume green products are called green consumers [17]. Green consumers strongly believe that buying and using products directly impacts protecting the environment; hence, they advocate for goods that are less likely to jeopardize human health or harm the environment [18]. Consumers' growing ecological concern has resulted in a dramatic rise in the demand for environmentally friendly goods worldwide [19,20]. This has, therefore, created a global green economy [21]. The green economy is defined as a type that considerably reduces negative environmental impacts and resource scarcity while improving people's quality of life and social equality [22]. It is rooted in a low-carbon economic system that seeks to reduce pollution levels, energy usage, and efficiency while enhancing human life [23]. The green economy is recognized in many countries over the world, such as Vietnam [3], Bangladesh [8], the United States [9], Germany [13], South Korea and China [24], Ghana [25], and South Africa [26]. Young consumers play a huge role in contributing to the green economy and have the potential to grow this type of economy because they are more aware of sustainable living [27,28]. They are also a significant aspect of green consumerism because they have purchasing power, to the extent that in 2023, they contributed US\$480 billion to the economy [29]. This shows that they have exceptional purchasing power. Therefore, their attitude toward green consumerism is significant. This study focuses on the awareness and attitudes of students towards green consumerism. Despite their importance in contributing to the green economy, research has minimally considered customers' shifting attitudes and behavior towards green consumerism [30,31]. This study contributes to the existing literature on the awareness and attitudes of young consumers regarding green consumerism. Studies such as [32] focus on specific aspects of green consumerism, such as recycling. However, this study focuses on green consumerism and the factors influencing its awareness. Moreover, the study contributes to the existing literature on the factors that influence the purchasing behavior of young consumers. It comprises various sections such as theoretical framework, materials and methods, results, discussion, and conclusion.

1.1. Literature Review

Consumers are a significant part of the green economy, which is expected to grow up to \$150 billion in the United States of America by 2021 [33]. Consumers in the green economy have a choice to make financial decisions that can preserve the environment [32]. For example, ecologically conscious customers only consume products and utilize services that pose a minimal threat to the environment [34]. Therefore, the green economy has to cater to these consumers. Green consumerism has gained traction over the past decade [35–38].

1.1.1. Green Consumerism

Compared to other products or services that fulfill the same purpose, green products may be defined as products or services that have a lesser or reduced negative impact on human health and the environment [35]. Furthermore, according to [38], choosing green products means purchasing the least destructive items to the environment and people. Green products include compact fluorescent lamps (CFLs), which utilize 75% less energy as compared to regular incandescent bulbs; organic products produced and processed without antibiotics, pesticides, or synthetic fertilizers; and hybrid electric vehicles, which do not emit greenhouse gases, and green hotels, which strive to conserve water, energy, and materials [35].

Companies have resorted to producing environmentally friendly products to decrease environmental degradation [39]. These companies, in particular, use green advertising to reach out to their target market, and this can be referred to as a company's initiative to introduce environmentally friendly products to customers to increase the product's value [40]. It is valued in some circumstances as it is pleasant, compelling, believable, and effective. Green advertising focuses on product education and environmental effects, and it is only effective if it can create a positive image for the brand [41]. Thus, it is used to increase awareness about the environment and green products among customers [42].

To address the effectiveness of green advertisement in increasing awareness and motivating the purchasing of environmentally friendly products, this study deduces the following objectives:

1. To assess the level of understanding of green consumerism in students.
2. To determine whether students purchase environmentally friendly products.
3. To determine factors that influence the purchasing behaviors of students.
4. To determine whether students purchase from companies with green initiatives.

The concept of environmentally friendly products is also called eco-friendly or green products [43]. These products are thoroughly assessed to ensure that all the stages they undergo have minimal environmental impact [44]. The factors evaluated include energy impact, carbon footprint, and the type of material used. The packaging of eco-friendly products has a market value and an influence on the market of these products [45].

In contrast to the typical private-domain activities supported by green consumption such as recycling, purchasing energy-efficient light bulbs, and eating organic food), green consumers engage in public and private-domain behaviors [46]. Private consumption behaviors involve resource sharing, whereas public behaviors involve participating in community activities. Green consumerism is a significant, developing trend that could create a sustainable environment [47]. However, there are challenges surrounding it.

1.1.2. Challenges with Green Consumerism

Green consumption is one of the significant factors that contribute to achieving sustainable development [48]. However, there are challenges with the implementation of green consumerism. The production of green products requires the necessary legislation, the manufacturer's commitment, and the right technology, which developing nations like India lack [49]. According to [50], customers in India highlighted that the quality of green products could be more satisfying; therefore, they refrain from purchasing them. Generally, products and services that promote sustainability are associated with poor quality [51]. Product availability is among the challenges in green consumerism [52]. The unavailability of green products hurts the customers' purchasing decisions. This study's unavailability of green products refers to the absence of green products in the market. According to [53], customers in Sri Lanka highlighted that green product unavailability is one factor influencing their purchasing decisions. Similarly, a study conducted in Pakistan found that the unavailability of green products negatively influences the customers green purchasing behavior [54]. In addition, customers in Taiwan and Vietnam stated that the unavailability of eco-friendly packaging impacts their green purchase intention [55].

Green products are more expensive than traditional products, and enforcing environmental standards on food is costly [55,56]. A study conducted in China found that half of the customers were concerned about the environment but unwilling to pay extra for green products [57]. Similarly, a study in Hungary investigating factors affecting customers' green behavior found that customers were unwilling to pay more for green products [58]. Additionally, a study conducted amongst consumers in Nigeria found that customers are willing to pay for green products, but they are not willing to pay higher prices [59]. Customers from different generations of green consumerism are different. Hence, this study assumes that:

H1: *Green product unavailability quality negatively affects the purchase of green products.*

H2: *High prices of green products negatively affect the purchase of green products.*

1.1.3. Awareness and Attitudes of Generation Cohorts on Green Consumerism

The awareness and attitude of an individual towards a phenomenon is, according to [60], shaped by the period in which they were born. The Theory of Generation contends that people born and raised in the same historical period have shared life experiences that influence them, giving them a distinct character, set of beliefs, and behavioral features [61].

The most prominent generation cohorts in green consumerism are Generation X, Generation Y, and Generation Z [62,63].

Individuals who are born between 1965 and 1980 are referred to as Generation X [64,65]. Consumers in this generation have an in-depth awareness of environmental issues. Furthermore, Generation X frequently examines a product in-depth, considering factors such as value, pricing, and the impact of the product on the environment [66]. According to [67], Generation X consumers are likely to purchase green products and practice sustainable living as compared to Generation Y consumers, who frequently consider the advantages a product offers against its effects on the environment.

Generation Y, also called millennials, are people born between 1982 and 2000 and are said to be environmentally aware and responsible [68]. According to [69], Generation Y supports environmental protection and believes that resource conservation and green consumerism are beneficial. However, other studies dispute that millennials are environmentally responsible and state that they are rather environmentally conscious [70–72], with the majority of them displaying varying degrees of concern for the environment and attitude such that they have not adapted to implement green consumer behavior [73]. In comparison to earlier generations, millennials generally displayed a more optimistic environmental concern [10]. However, Generation Z has more knowledge about environmental issues and is driven to engage in green consumer behavior [74,75]. Hence, the following hypotheses are generated:

H3: *Generation Z is aware of green consumerism.*

H4: *Generation Z participates in green consumerism initiatives.*

The research design employed in this study is presented in the succeeding section.

2. Materials and Methods

2.1. Description of Study Area

The study area for this research is the University of Johannesburg (UJ), which is located in Johannesburg, South Africa, as shown in Figure 1. There are four campuses with different locations, as shown in Figure 2 [76]. These campuses are Auckland Park Kingsway (APK), Auckland Bunting Road (APB), Doornfontein (DFC) and Soweto (SWC) campus. All these campuses are found in the metropolitan area of the City of Johannesburg (CoJ).



Figure 1. Map of South Africa [77].



Figure 2. Location of the UJ campuses [77].

The University of Johannesburg has more than 50,000 students, which includes 3000 international students who come from 80 different countries [78]. There are seven faculties, and they are faculty of education, law, health sciences, science, humanities, engineering, and built environment and art, design, and architecture. There is one college of business and economics [79].

2.2. Research Design

In this study, a survey research design was used. A survey research design is a procedure that is used in quantitative research whereby the researcher formulates a questionnaire that is used on a certain number of populations in order to find out how the population feels about a certain variable [80]. Both primary data and secondary data were used to gather data to ensure the validity and reliability of the results [81]. The secondary data also provided a means of understanding the variables of the study. Primary data was collected by means of an online questionnaire that consisted of both open-ended and closed-ended questions. Many studies on green consumerism use face-to-face questionnaires [46,82–84]. In this study, this type of approach was not possible due to the COVID-19 pandemic restrictions. In addition, an online survey was used because it has the potential to reach a significant number of people, has a relatively low cost, and has a large geographical coverage [85].

The data regarding students' awareness and attitudes towards green consumerism at UJ was collected in August 2022. Students were selected for the research because this group of young consumers is easily accessible to the researcher, has access to information, and has purchasing power [86,87]. The students were asked to consent to participating in the study at the beginning. It was impossible to respond to more questions in the absence of such consent. The questionnaire was accessible for three weeks. The questionnaire was filled out by the participants in less than 10 min. Those who participated were assured that they would remain anonymous and their personal details would not be used in this research. The number of students at the University of Johannesburg is more than 50,000; therefore, the minimum required number of participants in this study is 381, given that the confidence level $\alpha = 0.95$ and the measurement error is 5%. In this study, 404 filled online questionnaires were collected.

For the above-mentioned study area, the questionnaire, attached as Appendix A, was divided into four sections.

- Section A comprises demographics such as gender, age, level of education, campus, faculty, and total monthly income.
- Section B is about the level of understanding regarding green consumerism.
- Section C focuses on the purchasing behavior of the participants.
- Section D is about companies' green initiatives.

2.3. Data Collection and Analysis

Google Forms is the online platform used to create the online questionnaire. Both purposive sampling and snowballing sampling were used in this study. The researcher distributed the questionnaire to students at the University of Johannesburg from different faculties, who were also requested to distribute the questionnaire further to their contacts who are registered students at the University of Johannesburg. Furthermore, the University of Johannesburg learning and teaching platform called uLink was also used to post the questionnaire so that any student interested in participating in the study could easily access it. Prior to the distribution of the questionnaire, a pilot study was conducted to determine whether the content of the questionnaire was valid [88]. The pilot study was conducted amongst 22 University of Johannesburg Honours in Geography students. WhatsApp was used to distribute the link to the questionnaire to the participants. Based on their feedback, the questionnaire was easy to understand; therefore, no changes were made. Microsoft Excel and R-Studio are the data analysis tools used in this study. The closed-ended questions were analyzed using Microsoft Excel to produce descriptive statistics, which describes the data using graphs so that it can be easily interpreted. Open-ended questions were also analyzed using Microsoft Excel and R-studio.

3. Results

3.1. Demographic Structure of the Participants

Table 1 shows a summary of the demographic characteristics of the students who participated in the study. The data collected in this study consisted of 404 participants, of which 48% are female, 36% are male, and 16% are LGBTQA+. Out of the 404 participants, 15% are under 18–20 years of age. The majority of the participants (57%) are under the 21–23 years age group, while 23% are categorized under the 24–27 years age group. This is because the study area is a university, and generally, the majority of students in universities and colleges are between the ages of 18 and 25 years [89,90]. Only 5% of the participants are categorized under the 27–30 years age group. The population on the different campuses varies. APK has the majority of participants (38%), followed by DFC, which has 30% of participants. The rest of the campuses (APB and SWC) have a low number of participants (16%). With regards to faculties, the Faculty of Science has the highest number of participants (30%), while the Faculty of Humanities has the lowest number of participants (6%). The majority of the participants (52%) have a total monthly income that is between R1000 and R2000, followed by 16% of the participants, who have a total monthly income of R3000–R4000.

Table 1. Demographic characteristics of participants ($n = 404$).

Variable	Category	f	%
Gender	Female	192	48%
	Male	148	36%
	LGBTQI+	64	16%
Age group	18–20	60	15%
	21–23	232	57%
	24–26	92	23%
	27–30	20	5%

Table 1. Cont.

Variable	Category	f	%
Level of study	First year	96	24%
	Second year	68	17%
	Third year	102	25%
	Fourth year	56	14%
	Honours	64	16%
	Masters	18	4%
	PhD	0	0%
Campus	Auckland Park Kingsway Campus (APK)	152	38%
	Auckland Park Bunting Road (APB)	64	16%
	Doornfontein Campus (DFC)	120	30%
	Soweto Campus (SWC)	64	16%
Faculty	College of business and economics	40	9%
	Law	32	8%
	Education	52	13%
	Health sciences	44	11%
	Science	120	30%
	Arts, Design, and Architecture	44	11%
	Humanities	24	6%
	Engineering and built environment	48	12%
Total Monthly income	R0–R1000	56	14%
	R1000–R2000	212	52%
	R2000–R3000	64	16%
	R3000–R4000	48	12%
	R4000+	24	6%

3.2. Level of Understanding Regarding Green Consumerism

The purpose of this section is to determine whether the participants are aware of what green consumerism is. Figure 3 shows that the majority of the participants (66%) do not know what green consumerism is. Only 34% of the total participants are aware of what green consumerism is. Females (41.7%) are most of the participants who are aware of green consumerism, as shown in Table 2, followed by males (27%) and lastly LGBTQA+ (25%).

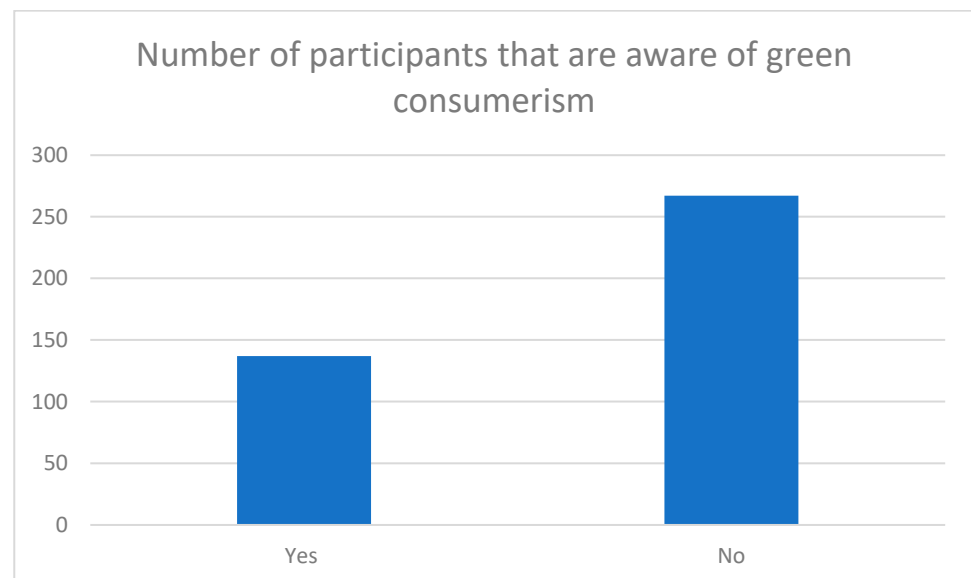


Figure 3. Graph showing the number of participants that are aware of green consumerism.

Table 2. The number of participants that know green consumerism.

			Gender			Total
			Female	LGBTQA+	Male	
Do you know what green consumerism is?	No	Count	112	48	108	268
		% Within Do you know what green consumerism is?	41.8%	17.9%	40.3%	100.0%
	Yes	Count	80	16	40	136
		% Within Do you know what green consumerism is?	58.8%	11.8%	29.4%	100.0%
Total	Count	192	64	148	404	
	% Within Do you know what green consumerism is?	47.5%	15.8%	36.6%	100.0%	

Table 3 highlights the relationship between demographic factors and the participants' level of awareness regarding green consumerism. Factors such as age, gender, level of study, and campus have no significant relationship with the participants' level of awareness regarding green consumerism ($p > 0.05$). The demographics that have a significant relationship with participants' level of awareness towards green consumerism are income ($p = 0.0003$) and faculty ($p = 0.0031$), as shown in Table 3. Participants who have a low income (R1000–R2000) and from the faculty of science have a higher level of awareness regarding green consumerism.

Table 3. Relationship between demographics and participants' level of awareness towards green consumerism.

Demographics	Std. Error	t Value	p Value
Age	0.041006	0.979	0.3282
Gender	0.035439	−0.867	0.3866
Level of study	0.020899	−0.092	0.9265
Campus	0.021743	−1.580	0.1148
Faculty	0.011963	−2.973	0.0031
Income	0.025744	3.606	0.0003

In Table 4, 98% of the participants believe that their level of resource consumption has an impact on the environment, and 100% of them stated that it is important to protect the environment. As a contribution towards protecting the environment, the majority of the participants (82%) mentioned that they do save electricity using energy-saving equipment such as LED lights (14%), switching off the geyser when not in use (16%), and switching off lights when not in use (52%). About 70% of the participants stated that they recycle for different reasons, such as to keep the environment clean (45%), to prevent land pollution (15%), and to protect the environment (11%). Table 5 shows that age ($p = 0.01174$), level of study (0.02406), and income ($p = 0.00001$) have a significant relationship with the participants' green consumerism activities, such as recycling. Participants who are in their third year of study and within the 21–23 years age range recycle more than others.

Table 4. Green consumerism activities.

Statement	Category	Number of Participants (n)	Number of Participants (%)
Do you think that your resource consumption (food, clothes) level has an impact on the environment?	Strongly agree	252	63%
	Agree	140	35%
	Disagree	12	2%
How important do you think it is to protect the environment?	Very important	312	77%
	Important	92	23%
	Not important	0	0%
Do you save electricity?	Yes	332	82%
	No	72	18%
How do you save electricity?	I use energy-saving equipment such as LED lights.	57	14%
	I switch off the geyser when not in use.	65	16%
	I switch off lights when not is use	210	52%
Do you recycle?	Yes	284	70%
	No	120	30%
Why do you recycle	To keep the environment clean	180	45%
	To prevent land pollution	60	15%
	To protect the environment	44	11%

Table 5. Relationship between demographics and the participants' green consumerism activities.

Demographics	Std. Error	t Value	p Value
Age	0.06403	−2.532	0.01174
Gender	0.05533	−1.270	0.20472
Level of study	0.03263	2.265	0.02406
Campus	0.03395	−2.984	0.30200
Faculty	0.01868	0.803	0.42261
Income	0.04020	4.105	0.00001

3.3. Purchasing Behavior

This section depicts the purchasing behavior of the participants. Figure 4 shows that 61% of the participants know what eco-friendly products are, whereas 39% of the participants do not have any knowledge regarding eco-friendly products. Table 6 shows that participants' awareness regarding eco-friendly products has a significant relationship with the faculty and campus of the participants ($p < 0.01$). The faculty of science and APK campus have a higher number of participants who are aware of eco-friendly products. Key demographics such as gender, age, level of study, and income have no significant relationship with the participants' awareness regarding eco-friendly products ($p > 0.05$).

The participants who know what eco-friendly products are were questioned on how frequently they purchase the products. Figure 5 shows that only 10% of the participants stated that they always purchase these products, whereas most of the participants (52.5%) purchase them sometimes. About 25% of the participants seldom purchase eco-friendly products, and 12.5% never purchase them.

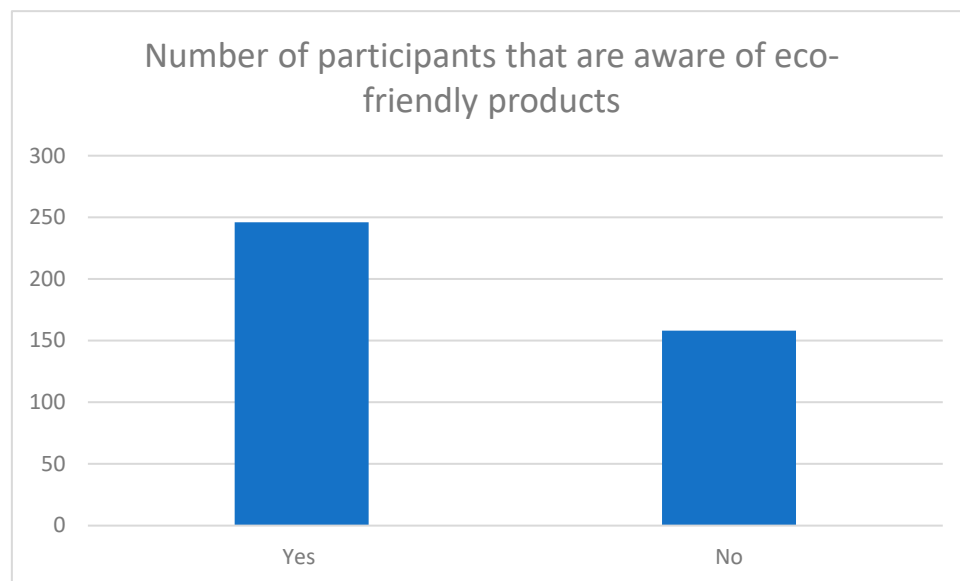


Figure 4. Number of participants who know what eco-friendly products are.

Table 6. Relationship between key demographics and participants' awareness of eco-friendly products.

Demographics	Std. Error	t Value	p Value
Age	0.040834	1.688	0.0923
Gender	0.035290	−0.692	0.4891
Level of study	0.020811	0.296	0.7676
Campus	0.021652	−4.361	0.0000
Faculty	0.011913	−4.512	0.0000
Income	0.025636	−0.055	0.9560

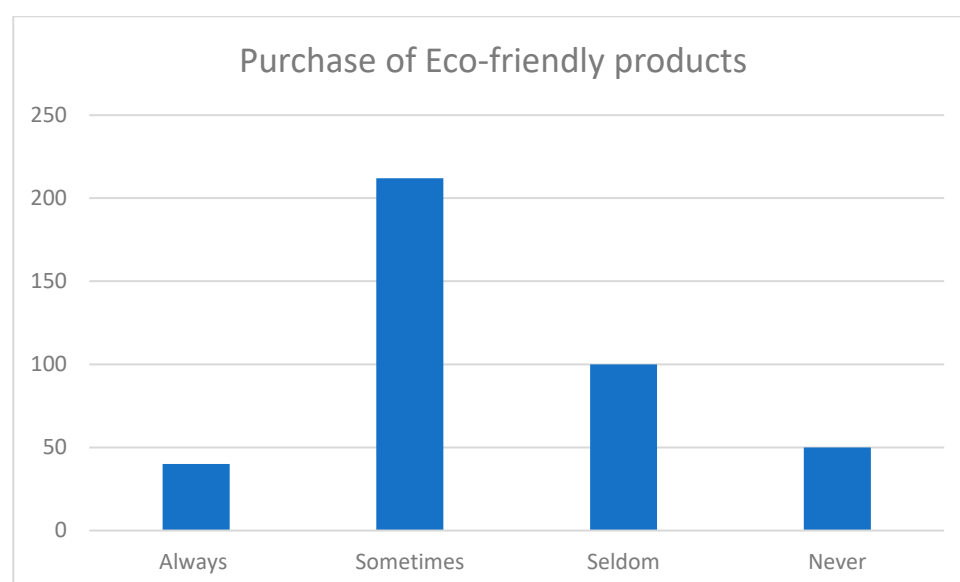


Figure 5. Bar graph showing how often participants purchase eco-friendly products.

Table 7 shows that there is a significant difference between the level of study ($p = 0.0249$), campus ($p = 0.000$), and participants' eco-friendly product purchase behavior. Participants who are in their third year of study and on the APK campus were found to be purchasing

more eco-friendly products. Demographics such as age, gender, income, and faculty do not have a significant relationship with the participants' eco-friendly product purchase behavior ($p > 0.05$).

Table 7. Relationship between the participants' eco-friendly product purchase behavior and demographics.

Demographics	Std. Error	t Value	p Value
Age	0.074578	−1.431	0.1532
Gender	0.064453	0.697	0.4862
Level of study	0.038008	−2.252	0.0249
Campus	0.039544	5.986	0.0000
Faculty	0.021757	1.018	0.3094
Income	0.046821	−0.197	0.8438

The participants mentioned the factors that have an influence on their purchasing decisions. Figure 6 shows that about 32% of the participants consider the quality of the product, 30.7% consider the price of the product, 25.7% look at the brand of the product, and only 11.9% take the impact the product has on the environment into consideration. In addition, 46% of the participants stated that they only consider products that have eco-labeling only when they are cheap. Only 3% of the participants fully consider eco-labeled products. Some of the remaining participants do not read labels when purchasing products (34%), and the rest do not know what eco-labeling is (17%).

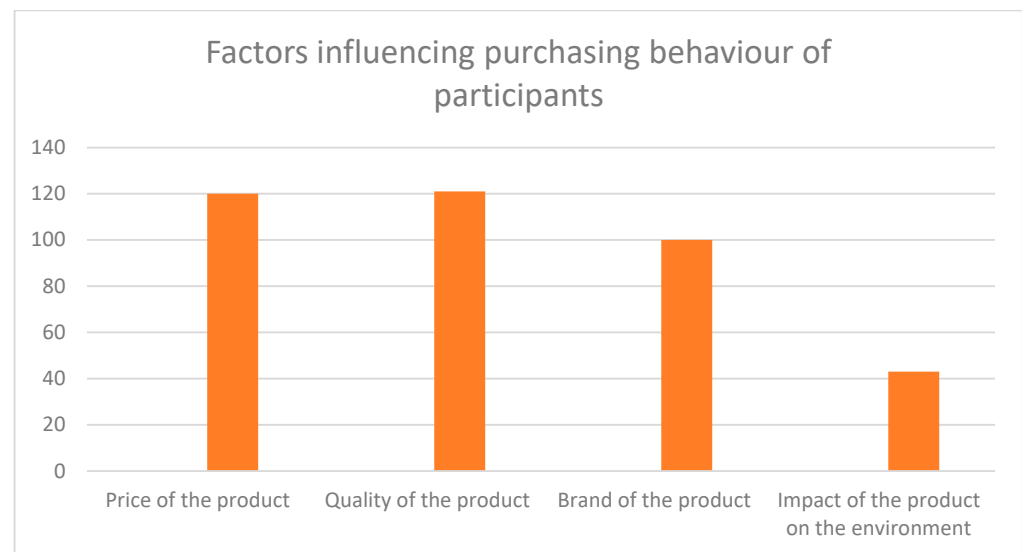


Figure 6. Factors that influence the purchasing behavior of the participants.

3.4. Companies Green Initiatives

The majority of the participants (57%) do not know any companies that have green initiatives, as shown in Figure 7. Only 43% of the participants know companies that have green initiatives. Table 8 shows that all the participants stated that it is significant for all companies to specify their green initiatives. Companies with green initiatives that were mostly mentioned by the participants are Woolworths, Pick n Pay, Cotton On, Food Lovers Market, and Checkers.

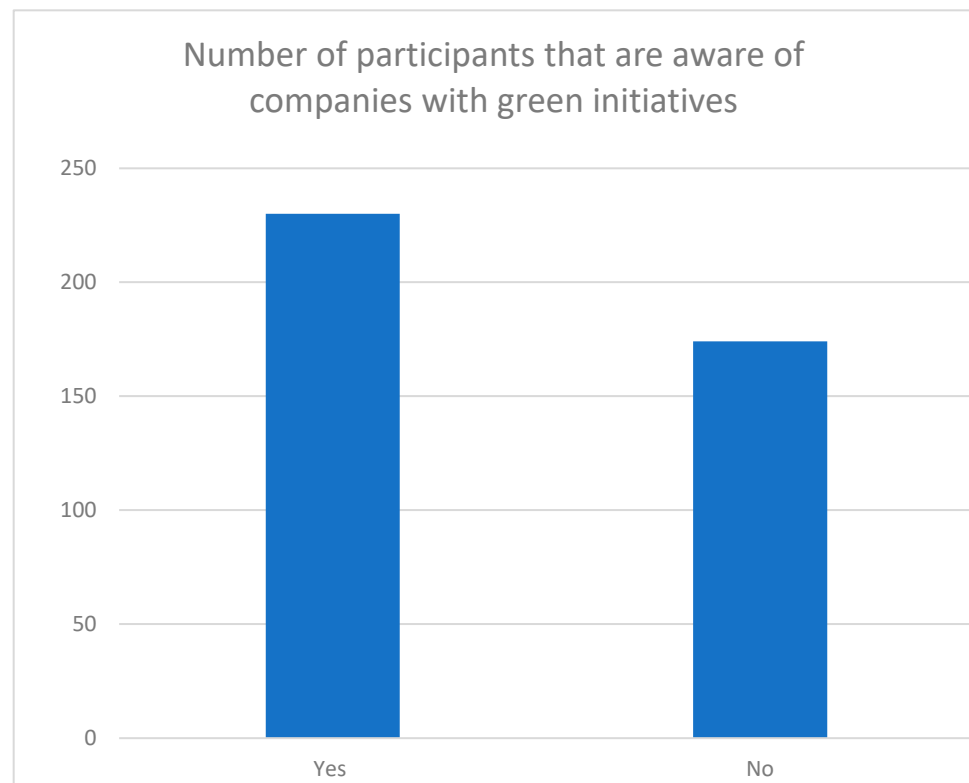


Figure 7. The number of participants that know companies with green initiatives.

Table 8. Companies' green initiatives.

Statement	Very Important	Important	Not Important
How important is it for companies to specify their green initiatives?	66%	34%	0%
How important is it to purchase in companies that use paper bags instead of plastics?	66%	33%	1%

The majority of the participants prefer purchasing products in companies that use paper bags over plastic bags, as shown in Table 8. Only 1% of the participants highlighted that it is not important to use paper bags. Figure 8 shows that 21% of the participants are willing to purchase products from companies that have biodegradable packaging. Most of the participants (45%) are likely to purchase from companies that have cheaper products, while 34% of the participants are likely to purchase from companies that sell eco-friendly products.

Table 9 shows that the demographics that have a significant relationship with the companies that participants are likely to purchase from are age ($p = 0.0313$) and faculty ($p = 0.0000$). Participants within the age range of 21–23 years and from the faculty of science were found to purchase from companies that sell eco-friendly products. Demographics such as gender, income, level of study, and campus do not have a significant relationship with the companies that the participants are likely to purchase from.

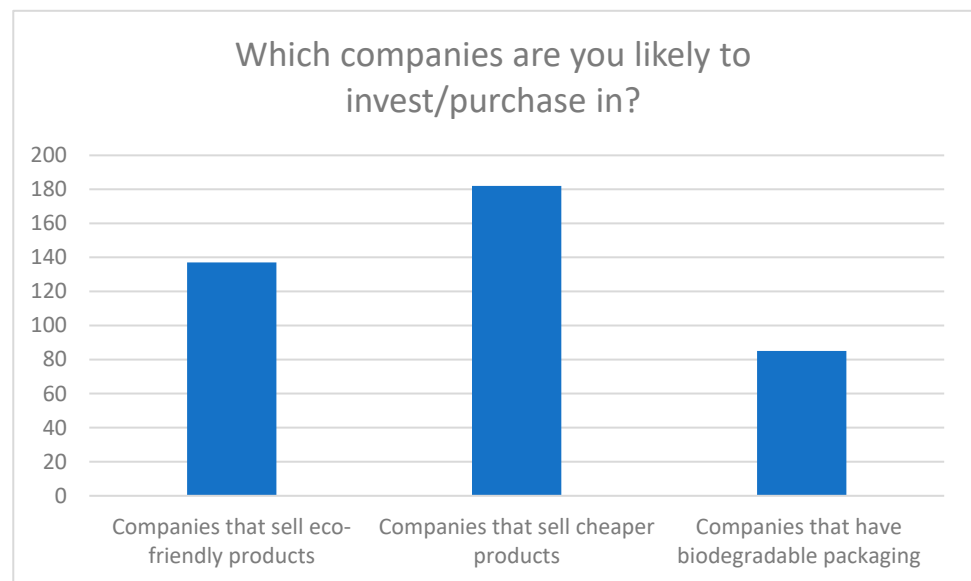


Figure 8. Different categories of companies that participants purchase/invest in.

Table 9. Relationships between companies' participants are likely to purchase in and demographics.

Demographics	Std. Error	t Value	p Value
Age	0.063705	2.161	0.0313
Gender	0.055056	−0.145	0.8846
Level of study	0.032467	0.312	0.7548
Campus	0.033779	0.777	0.4378
Faculty	0.018585	4.840	0.0000
Income	0.039995	−0.796	0.4264

4. Discussion

4.1. Demographics

Preceding studies on green consumerism found that demographic characteristics such as age, income, level of education, and gender have an influence on customers' attitudes and awareness with regard to green consumerism [91–94]. Therefore, this study focuses on gender, age, level of education, campus, faculty, and income as the key demographics.

Table 1 shows a summary of the demographic characteristics of the students who participated in the study. The gender distribution for this study corresponds with the University of Johannesburg 2020 annual report, which stated that, in 2020, the majority of the students were females (57%) and males were only 43% [95]. There is a variation in the population found on the different campuses. According to [95], APK is the largest campus in the University of Johannesburg as compared to the other three campuses, and it has the highest number of students. In addition, APK and DFC have the highest number of lecture hall seats, with APK having 7787 seats while DFC has 5142 seats [95]. The remaining campuses have the least number of lecture hall seats because APB has 4412 and SWC has 1842 seats. With regards to total monthly income, the results show that most of the participants (52%) have a total monthly income between R1000 and R2000. These results are supported by a study conducted at the University of KwaZulu Natal, which also found that most of the students have an income that ranges between R1000 and R2000 [96]. Furthermore, a study conducted at Stellenbosch University found that most students have a monthly allowance of R2000–R4000 [97].

4.2. Level of Understanding Regarding Green Consumerism

In the process of assessing the student's level of understanding about green consumerism, this study found that the level of understanding is low, with less than 50% of the participants aware of green consumerism. As a result, these results do not confirm H3. The study explored factors that influence the participants' level of understanding of green consumers. In this study, gender plays a role in the level of understanding of the participants, with results in Table 2 showing that females are more aware of green consumerism than other genders. However, Table 3 shows that there is no significant relationship between gender and the participants' level of awareness towards green consumerism ($p = 0.3866$). Similarly, a study in a State Junior High School in Indonesia found that females (64.34%) have a higher level of awareness of green consumerism as compared to males (63.86%), but there is no significant relationship between the level of awareness of females and males [98]. In addition, a study among the youth in Kenya found that there is no significant relationship between the knowledge of male and female participants regarding green consumerism [99].

Other factors, such as income and faculty, have an impact on the participants' awareness regarding green consumerism. Participants who have a low income (R1000–R2000) and from the faculty of science have a higher level of awareness regarding green consumerism. A study by [100] on customers' awareness of green consumerism found that income and education have a much greater impact on customers' awareness as compared to age and gender. Similarly, a study by [101] investigating the impact of socio-demographics on customers' awareness of green consumerism in India found that income has a significant relationship with customer awareness ($p = 0.003$). However, a study on consumer awareness of green consumerism in India found that there is a significant relationship between age and consumer awareness [102]. The level of understanding of green consumerism in the students is higher, with females more aware than other genders.

4.3. Purchasing Behavior

The second objective of the study aimed to determine whether participants purchase environmentally friendly products. This study found that participants are unlikely to purchase environmentally friendly products, as the results in Figure 5 show that only 10% of the participants purchase eco-friendly products. Similarly, [103] stated that consumers state that they know what sustainable products are. However, only 10% of them purchase environmentally friendly products. In addition, a study by [104] on the intention and behavior of customers toward green products found that customers appear to care about the environment, but this concern does not actually transfer to purchases of green products.

Demographic factors play a crucial role in influencing the purchasing behavior of customers. In this study, the purchasing behavior of participants is affected by their level of study and the campus they attend. Other demographics, such as age, gender, and income, do not have an influence on their behavior. A study conducted on the effects of demographics on Sri Lankan consumers' green purchase behavior found that there is no significant relationship between gender and consumers' green product purchase behavior [105]. However, this study also found that the level of education affects consumers' green product purchase behavior. In addition, few studies have found that age, gender, and income have a significant relationship with customers' green product purchases [106–108].

Alongside demographics, factors such as quality, price, and impact of products on the environment influence participants' purchasing behavior, which confirms H1 and H2. These results are supported by previous studies, which found that price and quality of products are significant factors when students purchase products [75,109–112]. With regards to eco-labeled products, most of the participants do not read them. According to [75,113], customers do not read eco-labels because they are confusing and lack enough information. [114] stated that the different environmental labels confused customers to an extent that they decide not to purchase such products.

4.4. Companies' Green Initiatives

According to the participants, it is imperative for companies to have green initiatives, and the participants highlighted that they purchase from companies such as Woolworths, Pick n Pay, Cotton On, Food Lovers Market, and Checkers, which possess green initiatives. Woolworths, Pick n Pay, and Shoprite are the major retailers that have green consumerism initiatives with the aim of decreasing carbon and water footprint and promoting sustainability [115,116]. These companies introduced the use of biodegradable and reusable bags in 2003. In 2018, some Woolworths outlets stopped selling plastic bags and encouraged customers to bring their own reusable bags [117].

Some of the participants stated that they do not purchase from companies with green initiatives, which shows that H4 is not true in this study. The price of packaging has been found to be one of the factors in this study that influences the companies' participants' likelihood to purchase products. As a result, these results confirm H2. These results resonate with a study by [118], which found that alternatives to plastic bags, such as paper bags, are too expensive and not easily available; therefore, customers opt for cheaper packaging. According to [119], before deciding whether to purchase a product or not, consumers first assess the advantages and price of the products. Furthermore, demographics, such as age, play a significant role in influencing the decision of participants as to which companies to purchase products in. According to [64], age is one of the important factors that influence purchasing behavior of customers, particularly the companies they purchase from. Moreover, ref. [120] added that age plays a significant role when it comes to choosing companies to purchase. In addition, ref. [120] found that there is a significant relationship between age and purchasing behavior of customers.

In this study, demographics such as gender, income, level of study, and campus do not have a significant relationship with the companies that the participants are likely to purchase from. However, previous studies highlighted that the likelihood of visiting companies with green initiatives and the general consumer green behavior depends on gender and levels of income [121–123]. Similarly, a study conducted on factors that influence consumers to purchase in companies with green initiatives found that gender has a significant relationship with companies participants are likely to purchase in, with women purchasing in companies with green initiatives more than men [124]. These results have contributed to the literature pertaining to green consumerism.

5. Conclusions

5.1. Recommendations

The recommendations in this study are made based on the findings.

Companies should increase their green advertisements through media advertisements, pamphlets, and billboards so that students can be more aware of eco-friendly products. According to [125], green advertisement is effective in increasing customers' awareness. The advertisement of green products can focus on the benefits of green products on the environment, which is likely to influence the students to purchase more green products [126]. Furthermore, to increase students' awareness of green consumerism, [127] suggested the implementation of green advertisement campaigns into the curriculum of higher education institutions. Suárez-Perales et al. [128] asserts that the introduction of green education into the curriculum of university students has a positive impact on their level of awareness pertaining to green consumerism. Furthermore, the labels on eco-friendly products should be clear and concise to the extent that it becomes easy for customers in general to differentiate between eco-friendly products and non-green products. Subsequently, a study conducted by [129] on UK customers found that the customers were willing to buy and use green products that had clear labels. The price of products was found to be one of the factors that influenced the purchasing decisions of the participants. It is important for companies to ensure that the prices of eco-friendly products are affordable [130]. Affordability is subjective; therefore, companies can conduct surveys on their customers to find out the average price that they are willing to pay for green products. Alternatively, companies can highlight the

benefits of green products as a manner to justify their price [131]. Government subsidies are a viable solution for the pricing of green products. According to [131], government subsidies on green products benefit consumers.

5.2. Limitations

This study has several limitations. Firstly, the participants in this study are only from one South African university; therefore, the results might not be an accurate representation of Generation Z in another context. The second limitation is that the participant's responses to the questionnaire may have been influenced by their close associates. Since purposive and snowballing sampling were used, there is a possibility of bias because an equal number of students from each faculty were not selected. Lastly, the study focused on eco-friendly products in general instead of a specific product, and this might have had an influence on the results.

Studies in the future can focus on a wide range of universities in a single country to increase the validity of the results. In assessing jargon such as green consumerism, future research can focus on assessing the different components of green consumerism instead of green consumers as a concept. It is advised to focus on specific eco-friendly products instead of generalization in the future.

5.3. Theoretical Implications

This study focused on assessing the level of knowledge of students at the University of Johannesburg regarding green consumerism. The findings suggest that the participants' level of awareness concerning green consumerism is low. These results are different from other similar studies because this study focused on a single group of young consumers, university students. The purchasing decisions of the participants are affected by the price and quality of the products. Furthermore, the findings indicate that the awareness of participants regarding eco-friendly products does not directly translate to the purchase of eco-friendly products because the majority of the participants are aware of eco-friendly products, but they do not always purchase them. In addition, the findings show that demographic characteristics such as level of education, faculty, and income have an impact on the participants' level of awareness towards green consumerism.

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Appendix A

Questionnaire

Greetings. I am Lindokuhle Mbokane enrolled for Honours in Geography at the University of Johannesburg. I am conducting research on the Awareness and Attitudes of Students at the University of Johannesburg towards Green Consumerism. I am kindly

inviting you to participate in this questionnaire, which will take less than 10 min. The information provided remains confidential and anonymous. If you agree to participate, please kindly proceed to the next step.

Section A: Demographic Details

1. Gender
 - Female
 - Male
 - LGBTQA+
2. Age
 - 18–20 years
 - 21–23 years
 - 24–26 years
 - 27–30 years
3. Level of study
 - First year
 - Second year
 - Third year
 - Fourth year
 - Honours
 - Masters
 - PhD
4. Campus
 - Auckland Park Campus (APK)
 - Doornfontein Campus (DFC)
 - Soweto Campus (SWC)
 - Auckland Park Bunting Road Campus (APB)
5. Faculty
 - Faculty of Science
 - Faculty of Humanities
 - Faculty of Education
 - Faculty of Engineering and Built Environment
 - Faculty of Health Sciences
 - Faculty of Law
 - College of Business and Economics
 - Faculty of Arts, Design and Architecture
6. Total monthly income
 - R0–R1000
 - R1000–R2000
 - R2000–R3000
 - R3000–R4000
 - R4000+

Section B: Level of Understanding Regarding Green Consumerism

1. Do you know what green consumerism is?
 - Yes
 - No
2. Do you think that your resource consumption (food, clothes,) level has an impact on the environment?

- Strongly agree
 - Agree
 - Disagree
3. How important do you think it is to protect the environment?
- Very important
 - Important
 - Not important
4. Do you save electricity?
- Yes
 - No
5. If yes, how do you save electricity?
- I use energy-saving electric equipment such as LED lights
 - I switch off the geyser when not in use
 - I switch off lights when not in use
6. Do you recycle?
- Yes
 - No
7. If yes, why do you recycle?
- To keep the environment clean
 - To prevent land pollution
 - To protect the environment

Section C: Purchasing Behavior

1. Do you know what eco-friendly products are?
- Yes
 - No
2. If yes, how often do you buy them
- Always (Every month)
 - Sometimes (Once in a month)
 - Seldom (Once in three months)
 - Never
3. What influences your purchasing decisions?
- Price of the product
 - Quality of the product
 - Brand of the product
 - Impact of the product on the environment
4. How do products that have eco-labeling affect your purchasing decision?
- I do not know what eco-labeling is
 - I do not read labels
 - I do consider products that have eco-labeling only if they are cheap
 - I fully consider eco-labelled products
5. When buying electric devices, do you consider how energy efficient they are?
- Always
 - Sometimes
 - Seldom
 - Never

Section D: Companies' Green Initiatives (Only Answer This Section If Your Response Is Yes in Section C, Question 1)

1. Do you know companies that promote sustainability/green initiatives?
 - Yes
 - No
2. If yes, please specify
3. How important is it for companies to specify their green initiatives?
 - Very important
 - Important
 - Not important
4. How important is it to purchase in companies that use paper bags instead of plastics?
 - Very important
 - Important
 - Not important
5. Which companies are you likely to purchase/invest in?
 - Companies that sell cheaper products
 - Companies that sell eco-friendly products
 - Companies that have biodegradable packaging

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