

The Influencing Factors of Consumers' Purchase Intention toward Green Products: A Case of Consumers in Saudi Arabia

Hiam G. Almohammadi¹ & Nadia A. Abdulghaffar²

¹ College of Business, King Abdulaziz University, Rabigh, Saudi Arabia

² Faculty of Economics and Administration, King Abdulaziz University, Jeddah, Saudi Arabia

Correspondence: Hiam G. Almohammadi, College of Business, King Abdulaziz University, Rabigh, Saudi Arabia.
E-mail: hgalmohamade@kau.edu.sa

Received: May 21, 2022

Accepted: July 13, 2022

Online Published: July 14, 2022

doi:10.5539/jsd.v15n4p136

URL: <https://doi.org/10.5539/jsd.v15n4p136>

Abstract

Traditional consumption patterns are considered to be among the leading causes of global environmental degradation. Green marketing has emerged as a possible solution to these harmful effects on the environment; it aims to provide services and products that have a positive impact on the ecosystem and that satisfy consumers' needs. This study investigates the factors that have an influence on consumers' intentions to purchase green products in Saudi Arabia. Attitudes toward green products (AGP), perceived behavioral control (PBC), subjective norms (SN), environmental concern (EC), environmental knowledge (EK), and green purchase intention (GPI) are examined. A questionnaire is used as a method of data collection to gain information from 251 consumers in Saudi Arabia. The conceptual model is constructed based on planned behavior theory (TPB) to support the framework of the current study. SPSS version 22.0 software was used to investigate the collected data. The study reveals that a consumer's attitude, environmental concern, and environmental knowledge are the main factors that influence the intention to buy green products in Saudi Arabia. Perceived behavioral control and subjective norms do not significantly support this purchase intention.

Keywords: green products, consumers' purchase intention, Saudi Arabia, theory of planned behavior

1. Introduction

Green products have emerged as a possible alternative to traditional consumer practices that have led to considerable ecological issues, for instance, pollution and global warming. By purchasing green products and adopting ecologically friendly practices such as the use of water-saving technology and recycling, consumers can enhance beneficial impacts and reduce harmful impacts on the environment (Saudi Vision 2030, 2019).

Green or eco-friendly practices have contributed to create "green marketing," which includes all actions designed to satisfy an individual's wants or needs with minimal harmful effects on the natural environment (Polonsky, 1994). It is also defined as the process of creating eco-friendly products and services of good quality and performance at an affordable price and then promoting them to gain consumers' approval (Nadaf & Nadaf, 2014). Green products are those that do not damage the natural environment (Handayani, 2017). Manufacturers who are interested in sustainability are producing products designed to reduce their ecological influence during their life cycle. (Albino et al., 2009). These green products conserve the environment by decreasing toxic agents, pollution, and waste, as well as by increasing the use of eco-friendly resources (Ottman, 1992).

Consumers are more expected to buy green products if they have high ecological consciousness (Yunus & Rahman, 2014). The tendency to replace traditional products with green products is thriving in developed regions, such as The United States and Western Europe, since consumers in these regions tend to have high environmental awareness (Curlo, 1999). In developing countries, consumers' attitudes, intentions, and behaviors toward green substitutes are not highly favorable. This is because consumers in these regions have a tendency to have a low level of worry or concern about the natural environment (Butt, 2017). The fundamental stimulator of a purchase is the consumer's intention to possess the product. Many factors influence a consumer's intention to make a purchase. According to previous studies (Butt, 2017; Choi & Johnson, 2019; Li, 2018; Sreen et al., 2018; Trivedi et al., 2018; Yong et al., 2017), a consumer's green purchase intention is affected by a variety of factors, such as environmental knowledge, environmental concern, and the theory of planned behavior predictors (attitude toward green products,

perceived behavioral control, and subjective norms), which will be the focus of the current study. The current study determines and analyzes the major influencing factors that are considered to be essential to the intention to buy green products. The scarcity of studies investigating the influencing factors on the purchase of green products in Saudi Arabia indicates a gap in knowledge that makes this study highly relevant. The current study will expand on the existing literature by extending and validating the TPB framework in a distinctive cultural setting. Hopefully that the current study will contribute to the promotion of green products and their benefits by assisting marketers in determining the factors influencing consumers' purchase intention toward green products in Saudi Arabia. This will allow them to develop customized market strategies and projects to foster green purchasing behavior.

2. Theoretical Background

2.1 Green Product Development

In recent years, a rising pattern of consumer consumption of products and services has resulted in the exhaustion of ecological sources and a level of intense damage that threatens the environment. Correspondingly, a massive number of environmental issues have emerged as, for instance, global warming, high rates of ecological pollution, and depletion of the ozone layer (Chen & Chai, 2010).

Almost 40% of environmental damage is caused by consumers' daily purchases (Ayodele et al., 2017; Grunert & Juhl, 1995). However, consumers are capable of warding off or diminishing harm to the environment by replacing traditional products with green products. Earlier studies suggest that when it comes to conserving the natural environment, consumers exhibit a positive attitude (Ayodele et al., 2017). Consumers have previously expressed their desire for corporations to provide green products (Bockman et al., 2009; Schmeltz, 2012). The evolution of effective green products has played a significant role in green marketing strategies that help corporations and economies move toward a sustainable environment (Yan & Yazdanifard, 2014). Even though many consumers appear to be prepared to purchase green products, the sales numbers scarcely reflect this intention. Regardless of consumers' positive attitude toward green products and their concern about the environment, the green products' market share stays limited to only 3% of the whole market (Bray et al., 2011).

2.2 Green Product Definitions

As stated by Ottman (1992), green products are durable, non-poisonous products that are created and packaged using recycled materials. They are differentiated from their alternatives by having a lower effect on the environment. The Commission of the European Communities (2001) classifies green or environmentally friendly products as products that require a minimal amount of resources, result in a reduced impact on the environment, and decrease waste generation during the consumption phase. Liu and Wu (2009) define green products as products designed to save energy and decrease pollution. A green product is "designed to minimize its environmental impacts during its whole life cycle. In particular, non-renewable resource use is minimized, toxic materials are avoided, and renewable resource use takes place in accordance with their rate of replenishment" (Albino et al., 2009, p. 86). Green products are produced using renewable resources, enhance their environmental influence, and decrease environmental noxious damage for the duration of their life cycle (Durif et al., 2010). The definition that will be used in this study is compatible with all prior definitions; green products are those that are made, collected, and packaged by using recycled or environmentally harmless materials and that minimize ecological effects throughout their entire life cycle.

2.3 Green Product Characteristics

Previous researchers have identified a variety of green product characteristics. Some features are associated with the production phase of green products, such as the use of renewable resources (Albino et al., 2009; Yang, 2017), manufacturing using procedures and materials that are safe for the environment (Gurau & Ranchhod, 2005; Hartmann & Ibanez, 2006; Simon, 1992), and the use of natural resources (Yang, 2017). Green products use less packaging (Chen & Chai, 2010; Simon, 1992), fewer raw materials (Ljungberg, 2007; Simon, 1992), and no non-essential animal testing (Simon, 1992). They also decrease emissions dispersion and the creation of toxics (Elkington & Hailes, 1988). Other features are related to the usage phase of green products. These include increasing efficiency during use (Ljungberg, 2007; Luttrupp & Lagerstedt, 2006); having a long and useful life (Ljungberg, 2007; Simon, 1992); and causing no considerable harm to the natural environment during usage or disposal (Elkington & Hailes, 1988). Other features are related to the after-use phase of green products. These features include being biodegradable (Simon, 1992; Chen & Chai, 2010), reducing or recycling waste (Elkington & Hailes, 1988; Liu & Wu, 2009; Ottman et al., 2006; Wee & Quazi, 2005), having low maintenance requirements (Yang, 2017), and having remanufacturing possibility (Simon, 1992). Generally, green products are those that have low environmental impact or are safe for the environment (Albino et al., 2009; D'Souza et al., 2007; Joshi & Rahman, 2015; Ottman et al., 2006). Decreasing pollution and saving energy are also among the characteristics of

green products (Elkington & Hailes, 1988; Simon, 1992; Ljungberg, 2007; Liu & Wu, 2009, Yang, 2017). Products may also be considered green if they have the following attributes: being durable and non-poisonous (D'Souza et al., 2007; Ottman et al., 2006, Yang, 2017), not jeopardizing a consumer's health or the health of others (Elkington & Hailes, 1988), and not negatively impacting other countries (specifically developing countries).

2.4 Green Products and Environmental Protection

Green products have emerged as a means of reducing or eliminating environmental problems that relate to the unwise consumption of traditional products and the harmful effects that accompany their consumption. Consciousness about the natural environment is one of the factors that influences consumers to purchase green products (Cherian & Jacob, 2012). They may therefore choose to purchase products that are biodegradable and do minor damage to human beings, animals, and the ecosystem (Borin et al., 2013). Green products are products that are useful to the environment. These include recycled paper, power-saving light bulbs, eco-friendly bags, and energy-efficient electrical devices and automobiles (Jaiswal & Kant, 2018; Joshi & Rahman, 2015; Lee, 2008). Companies are interested in the manufacture of green products, and corporate managers and researchers are seeking techniques to persuade consumers to purchase green products (Wang et al., 2019). A green purchase happens when a consumer purchases a product that can be recycled, preserved, or will do no damage to environmental resources (Mostafa, 2006). Prior studies have indicated that people who are highly worried about the natural environment are significantly more likely to buy green products (Sarumathi, 2014; Sreen et al., 2018). Moreover, consumers with high-level of ecological consciousness are prepared to pay more for such a product because they understand its environmental advantages (Yaacob & Zakaria, 2011). Consumers who have a superior ecological awareness are also more likely to buy green products when they are offered. Additionally, if the green products are deemed to be advantageous for the environment, consumers will be eager to pay a higher amount for acquiring these products (Laroche et al., 2001). In opposition to this research, however, Berger and Corbin (1992) reported that consumers who indicated that they were worried about the environment nonetheless believed that their choices did not actually affect environmental problems. In research by Yong et al. (2017), consumers indicated that they would rather purchase green products since they protect the environment. However, this preference did not mean they were ready to make concessions on affordability and quality. It appears from this study that if a green product is costlier than the alternatives, consumers may decide not to purchase it (Wang et al., 2019).

2.5 Consumers' Intentions to Purchase Green Products

There is a crucial need for consumer research on the green market because there is a current inclination to select green products and services as environmental consciousness increases (Rahman, 2018). This growing environmental consciousness leads to the alteration of the patterns of consumption toward environmental products and services (Yang, 2017). Consumers who are concerned about and interested in ecological concerns are known as green consumers (Soonthonsmai, 2007). Green consumers are consumers who take into account the ecological impact of their patterns of consumption and who are ready to alter their buying behaviors (Ritter et al., 2015). Green consumers can further be defined as those who concentrate on the buying and utilization process as it attaches to the production process, the disposal of products, and their influence on the ecosystem (Rahman, 2018).

Green purchase decisions are becoming a significant concern in recent research examining green marketing (Rahman, 2018). A green purchase decision stems from a consumer's eagerness to advocate for green corporations (Laroche et al., 2001) and from their enthusiasm to purchase green products even if this means spending extra money (Hasan & Ali, 2015). Furthermore, previous studies have claimed that consumers are more likely to obtain environmental products for their ecological and collective advantages (Rahman, 2018). Consumers purchase green products to reduce damaging effects on the ecosystem by conserving ecological sources, diminishing energy utilization and waste, and enhancing safety and good health (Chan, 2001).

Consumers show a solid intention to purchase green products when they have increasing consciousness about ecological concerns (Rahman, 2018). Intention is presumed to capture the motivational influences that impact a behavior (Ajzen, 1991). Hawkins and Mothersbaugh (2010) have defined the word "intention" as the antecedents that motivate consumers and push them to make a purchase. Wang and Yang (2008) have defined "purchase intention" as physiological behavior that demonstrates a person's act according to the product. Other scholars have described the purchase intention as the consciousness of a person to try to buy a specific product (Shabbir et al. 2009).

For the purpose of this study, the definition of this dependent variable is compatible with Nik (2009) definition of green purchase intention as the likelihood and inclination of an individual to prefer green products over conventional products in buying considerations.

2.6 Factors Influencing Consumers' Intentions to Purchase Green Products

Several studies had been conducted to measure the intentions of consumers to buy green products. In the context of the affecting factors that are specifically related to the TPB constructs—perceived behavioral control, subjective norms, and attitude (Nam et al., 2017)—findings have endorsed the significant influences of attitude and subjective norms on consumers' intentions to purchase green sportswear. Other studies have investigated the impact of environmental attitude, perceived behavioral control, and subjective norms on green vehicle purchase intention (Yong et al., 2017). Results indicated that environmental attitude, perceived behavioral control, and subjective norms directly affected consumers' purchase intention toward green vehicles.

Some researchers have investigated the effect of environmental motivations on the intention to purchase green products. Environmental concern and environmental knowledge were also studied; results indicated that while environmental concern did not have a significant effect in clarifying purchase intention, environmental knowledge did have an effect (Choi & Johnson, 2019). These results are in contrast to a study by Aman et al. (2012), which investigated the impact of environmental concern and environmental knowledge on green purchase intentions and investigated the impact of attitude as a mediator. Results indicated that attitude had a partial mediation effect on the correlation between environmental concern and green purchase intention. However, environmental knowledge did not predict attitude, and thus attitude appeared to have no mediating influence on the correlation between environmental knowledge and green purchase intention (Aman et al., 2012).

Other researchers have investigated the effect of environmental concern on green purchase intention with the mediation of attitude (Butt, 2017). These findings suggested that environmental concern had a considerable impact on consumers' attitude toward green products, and this attitude was noticed to have a considerable impact on green buying intention (Butt, 2017).

A study by Lee (2017) demonstrated the impact of the recent environmental paradigm, ecological collective efficacy, and ecological knowledge on the green buying intentions of both Chinese and Korean consumers. The study findings demonstrated that all three factors were direct antecedents of green buying intentions in China. For Korean consumers, only environmental knowledge and ecological collective efficacy had straight influences on green buying intentions (Lee, 2017).

Jaiswal and Kant (2018) conducted research using a model based on attitude-intention-behavior. Using data gathered from more than 300 Indian consumers, they found that green buying intention was driven by environmental concern—both directly and indirectly—through the attitude toward green products as a mediator. Nevertheless, perceived environmental knowledge was realized to have an unimportant impact on attitude toward both green products and green buying intention.

Yong et al. (2017) attempted to define the factors influencing the purchase intentions of the consumers toward green vehicles in Malaysia. The researchers used a survey method to obtain data from 300 consumers. Their findings indicated that consumers' purchase intentions toward green vehicles were directly influenced by environmental attitudes (Yong et al., 2017).

Memar and Ahmed (2012) observed that eco-literacy and environmental laws are strong factors affecting consumer intention toward purchasing an ecologically friendly printer in the Swedish marketplace. The findings of Ali and Ahmad (2012) further confirmed the impact of environmental knowledge and environmental concern on consumers' green buying intentions.

Various other factors have been examined in the literature. Huang et al. (2014) investigated the impact of green brand knowledge, green brand positioning, and attitude toward green brands on green purchase intentions. They found that green brand knowledge and green brand positioning affected green brand attitudes independently. Green brand knowledge influenced green brand attitudes and green brand attitudes also affect green purchase intention.

A further study by Kabadayi (2015) examined the influence of self-monitoring, perceived consumer effectiveness, and consumer guilt on green purchase intentions. The findings demonstrated that self-monitoring did not have a considerable impact on green purchase intention. However, they indicated that the construct of guilt had both direct and indirect impacts on green buying intention. The indirect consequences of constructs showed that guilt produced more positive green buying intention through perceived consumer effectiveness. This suggests that perceived consumer effectiveness to some extent mediates the correlation between green buying intention and guilt.

Sreen et al. (2018) investigated the influence of man-nature orientation, collectivism, subjective norms, long-term orientation, attitude toward green products, perceived behavioral control, and gender on green purchase intention. Their findings illustrated that collectivism was considerably connected with all three predictors of green purchase intention (attitude, subjective norms, and internal perceived behavioral control) in TPB, while long-term

orientation was unimportantly interrelated to attitude toward green products while inspecting the direct influences. Green purchase intention was noticed to be significantly associated with man-nature orientation.

In the current study, which aims to examine the influencing factors of purchase intention toward green products, the focus is on the TPB's constructs—namely perceived behavior control, attitude, and subjective norms—additionally to environmental knowledge and environmental concern.

2.6.1 Perceived Behavioral Control

According to Ajzen (1991), perceived behavioral control (PBC) is the awareness of a person regarding how simple or hard it is to manage a particular behavior. Perceived behavioral control is described as “the extent to which the person has control over internal and external factors that facilitate or constrain the behavior performance” (Al-Nahdi, 2015, p. 3). Some previous studies have demonstrated no significant influence of PBC in the presence of attitude (Choi & Johnson, 2019; Nam et al., 2017). According to Ajzen (1991), the influence of PBC on purchase intention may differ among various groups of consumers. Green products are often more costly than traditional products, and the product's price plays an important role when a consumer makes a purchasing decision. This is especially true for consumers with low concern for the environment who are not willing to pay extra money for acquiring green products (Kim & Chung, 2011; Nam et al., 2017). Furthermore, consumers may perceive barriers to purchase green products as a result of decreased availability of this sort of products in Saudi markets (Choi & Johnson, 2019). However, other studies have illustrated that PBC directly influences consumer attitude toward green products (Sreen et al., 2018). In consequence, the first hypothesis is formulated as:

(H1) Perceived behavioral control significantly influences consumer's attitudes toward green products.

2.6.2 Subjective Norms

Subjective norms can be defined as socially perceived pressures that persons receive from other individuals important to them; these norms contain the expectation for persons to perform in a particular way (Ajzen, 1991). Subjective norms are also expressed as perceived social influences regarding a specific behavior in which people might indulge (O' Neal, 2007). Some researchers have perceived that subjective norms have no direct effect on consumer attitude toward green products (Varshneya et al., 2017). However, consumers may search for support from other individuals when they are unsure of the outcomes of a specific type of conduct (Bratt, 1999). According to Memar and Ahmed (2012) and Humaira (2018), subjective norms affecting the consumption patterns of green products are reflected in the values of the consumer's family and friends. Several past studies have demonstrated that subjective norms directly influence consumer attitude toward green products (Sreen et al., 2018; Tarkiainen & Sundqvist, 2005). In consequence, the second hypothesis is formulated as:

(H2) Subjective norms significantly influence consumer's attitudes toward green products.

2.6.3 Environmental Concern

In accordance with Hines et al. (1987), environmental concern identified as a person's awareness of problems related to the environment. Dunlap and Robert (2002) have described environmental concern as the recognition of ecological problems and the tendency to solve them by supporting eco-friendly programs. Numerous corporations have promoted themselves as being environmentally friendly through advertising their eco-friendly services and products in accordance with growing consumer environmental awareness (Choi & Johnson, 2019). Consumers who possess positive attitudes regarding green products that directly correspond with their high level of purchase intentions exhibit high environmental concern for such products (Khaola et al., 2014). Some past studies have demonstrated that environmental concern has no direct or important effect on consumer attitude toward green products. For instance, Alwitt and Pitts (1996) indicated that environmental concern was quite general when predicting a certain conduct. In contrast, other studies have noticed that environmental concern had a considerable and direct impact on consumer attitude toward green products (Butt, 2017; Jaiswal & Kant, 2018; Mostafa, 2007). In consequence, the third hypothesis is formulated as:

(H3) Environmental concern significantly influences consumer's attitudes toward green products.

2.6.4 Environmental Knowledge

Environmental knowledge is known as the ability of an individual to recognize several environmentally relative notions, symbols, and behaviors (Laroche et al. 2001). In accordance with Fryxell and Lo (2003), environmental knowledge is a broad knowledge of relationships, facts, and thoughts with regard to the environment and its main ecosystems. Some past studies have illustrated no significant or direct impact of environmental knowledge on consumers' attitudes toward green products (Jaiswal & Kant, 2018), whereas further studies have demonstrated a direct and important impact of environmental knowledge on consumers' attitudes (Kumar et al., 2017; Yadav &

Pathak, 2016). In consequence, the fourth hypothesis is formulated as:

(H4) Environmental knowledge significantly influences consumer's attitudes toward green products.

2.6.5 Consumers' Attitudes toward Green Products

Attitude is defined as what consumers find desirable and undesirable when they make decisions about acquiring a product or a service (Blackwell et al., 2006). Attitude has also been described as a psychological tendency that illustrates satisfaction or dissatisfaction of a person toward an object (Eagly & Chaiken, 2007). The TPB states that a positive attitude toward a specific behavior increases the probability that an individual will exhibit that behavior (Ajzen, 1991). Some previous studies have noticed that attitude toward green products has the greatest influence on green purchase intentions (Choi & Johnson, 2019; Sreen et al., 2018). Furthermore, earlier studies of green products have demonstrated that green purchase intentions were completely and significantly driven by attitude toward green products (Aman et al., 2012; Chen & Chai, 2010; Gani, 2017; Jaiswal & Kant, 2018; Joshi & Rahman, 2015; Nam et al., 2017; Yadav & Pathak, 2016). In consequence, the fifth hypothesis is formulated as:

(H5) Consumer's attitudes toward green products significantly influence purchase intention toward these products.

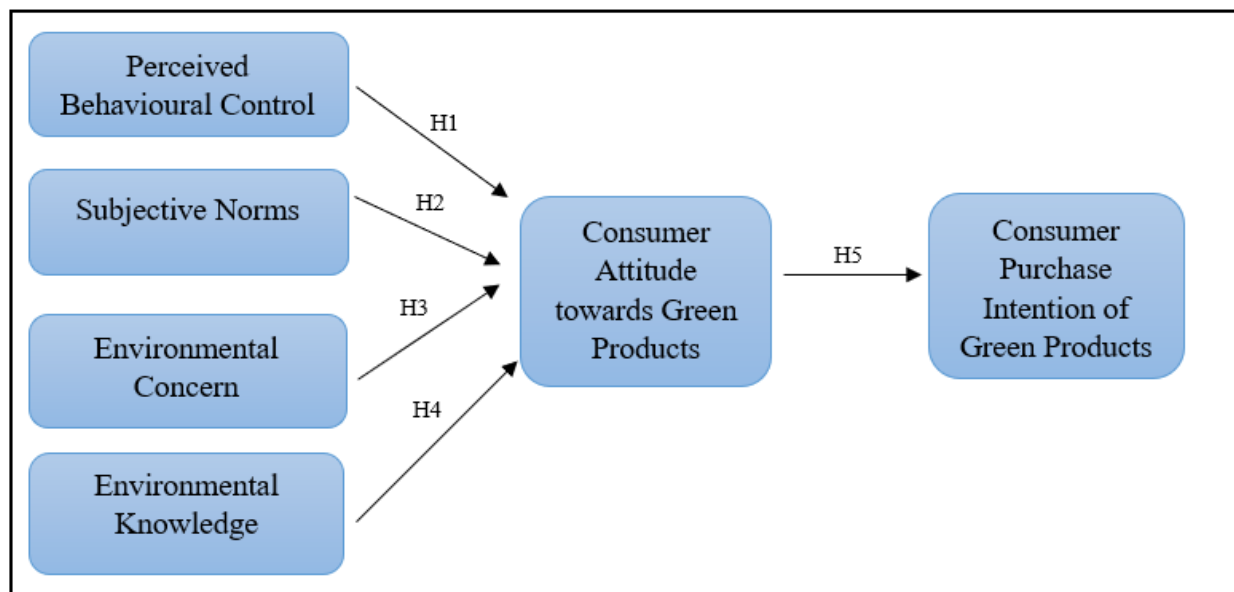


Figure 1. The influencing factors of consumer's purchase intention toward green products

2.7 The Future of the Environment in Saudi Arabia

The 2030 Vision for Saudi Arabia includes the National Environmental Awareness and Sustainable Development Program, which purposes to boost environmental consciousness of domestic, regional and global problems; concentrate on the mutual relations between environment and development; and develop transactions to address environmental problems and control of the environment so that environmental issues become a priority for all sections of Saudi society. The program will focus on environmental concerns based on the priorities of the Presidency of Metrology and Environment (PME) such as environmentally friendly shopping and the promotion of sustainable consumption patterns (Saudi Vision 2030, 2019). The program is projected to last for a decade and will be implemented in three levels, which will guarantee that the desired behavioral transformation of people and parties involved can be measured. One of the 2030 Vision themes is "vibrant society", which includes attaining ecological sustainability by conserving the Saudi natural environment and its ecological resources (Saudi Vision 2030, 2019). In order to safeguard the domestic environment, it will be necessary to enhance the effectiveness of waste managing, create comprehensive recycling ventures, decrease all kinds of pollution, and fight desertification. The usage of water resources must be improved through diminished consumption and the use of renewable and treated water (Saudi Vision 2030, 2019).

3. Research Methodology

3.1 Population and Sample Design

A population comprises the subjects who conform to a particular combination or specification (Polit & Hungler,

1999). The current study aims to define how the factors are going to impact consumers' purchase intention toward green products. Participants were consumers from 18 to 60 years old who had the buying ability to purchase green products and who had or did not have the intention to buy green products. Residents of Jeddah city and the immediate surrounding areas were chosen as the study's population.

A simple random sampling method was used for data gathering. This technique means that each individual in the population has an equal chance of involvement in sample (Taherdoost, 2016). The data can be generalizable and representative of the population if the sample is sufficiently sizable (Bryman & Bell, 2007). However, the sample size is "a more or less subjective judgment made by the researcher" (Singh et al., 2014, p. 38). According to Sudiyanti (2009), a sample size of 200 is adequate to obtain reliable correlation coefficients outcomes. In the current study, data was collected from 251 consumers living in Jeddah.

3.2 Sources of Data

Data is defined by Polit and Hungler (1999) as information acquired in a course of study. Primary and secondary data were used in the current study. Primary data was gathered through a self-administered questionnaire, while secondary data was gained from journal articles, online articles, and books.

3.3 Data Collection Methods

Data collection tools point out to devices used to gather data such as tests, questionnaires, checklists, and structured interview schedules (Polit & Hungler, 1999). The primary tool used in the current study was a questionnaire. According to Saunders et al. (2003), a questionnaire is a technique of gathering data that consists of a combination of questions and other prompts for the aim of collecting data from participants. The questionnaire design plays an essential part in the survey research process (Zikmund et al., 2013). In the current study, the questionnaire was designed and written by the researcher and adjusted by the supervisor. It comprised of closed-ended questions.

The online questionnaire was distributed through Google Docs in order to get to participants efficiently and effectively. The questionnaire was organized into three sections:

- Section one obtained demographic information through four questions related to gender, education level, age, and monthly income.
- Section two included five yes or no questions about general information related to green products.
- Section three contained six parts (perceived behavioral control, subjective norms, environmental concern, environmental knowledge, attitude toward purchasing green products, and the consumer's green purchase intention); each part included questions related to the factors that impact a consumer's intention to buy green products in Saudi Arabia.

Section three used a single-item Likert scale (1= Strongly disagree to 5=Strongly agree) for positive questions, as the follows:

Table 1. Likert scale for positive questions

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Item	1	2	3	4	5

For negative questions, the following Likert scale (5= Strongly disagree to 1=Strongly agree) was used:

Table 2. Likert scale for negative questions

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Item	5	4	3	2	1

Table 3. Descriptive statistics of respondent's general information

Variables	Category	Frequency (n)	Percentage (%)
1. Gender	Male	101	40
	Female	150	60
2. Education Level	Lower than bachelor's degree	67	27
	Bachelor's degree	154	61
	Higher education	30	12
3. Age	18–25 years	60	23.9
	26–35 years	101	40.2
	36–45 years	59	23.5
	Over 45 years	31	12.4
4. Monthly Income	Less than 3 000 SR	79	31.5
	3 000 – 9 000 SR	84	33.5
	9 001 – 15 000 SR	60	23.9
	More than 15 000 SR	28	11.2

Table 4. Cronbach's Alpha (α) reliability test for the study

Construct	Cronbach's Alpha	Number of items	Number of cases
1. Perceived behavioral control	0.620	5	251
2. Subjective norms	0.822	5	251
3. Environmental concern	0.774	8	251
4. Environmental knowledge	0.822	5	251
5. Consumer attitude toward green products	0.870	7	251
6. Consumer purchase intention toward green products	0.896	5	251

Table 4 presents the Cronbach's Alpha values that were used to ascertain the reliability and validity of the questionnaire construct and items. The data were analyzed using SPSS software (Version 22). Cronbach alpha values for the scales ranged from 0.620 to 0.896.

4. Results

To study the relationship between perceived behavioral control, subjective norms, environmental concern, and environmental knowledge as independent variables that may affect consumer attitude as a mediating variable in which may affect the (consumer purchase intention) as a dependent variable, As shown in Table 5, the Pearson correlation was used to show the significance level and correlations coefficients to accept or reject the overall hypothesized model.

The null hypothesis for the first hypothesis states that:

H1₀: Perceived behavioral control does not significantly influence consumer's attitudes toward green products.

H1₁: Perceived behavioral control significantly influences consumer's attitudes toward green products.

The association between perceived behavioral control and consumer's attitudes toward green products was detected by using Pearson correlational analyses as shown in Table 5. Although the correlation was negative ($r = -.099$), the results showed no significant association ($p \text{ value} = 0.119 > 0.05$). The results indicated that perceived behavioral control and consumer's attitudes toward green products were not associated. Therefore, the null hypothesis can be accepted.

The null hypothesis for the second hypothesis states that:

H2₀: Subjective norms do not significantly influence consumer's attitudes toward green products.

H2₁: Subjective norms significantly influence consumer’s attitudes toward green products.

As shown in Table 5, the null hypothesis can be accepted. There was no important correlation between subjective norms and consumer’s attitudes toward green products since (p values=0.580 > 0.05)

The null hypothesis for the third hypothesis states that:

H3₀: Environmental concern does not significantly influence consumer’s attitudes toward green products.

H3₁: Environmental concern significantly influences consumer’s attitudes toward green products.

As shown in Table 5, the null hypothesis can be rejected (p values=0.000 < 0.05, r= 0.604). There was a moderate positive highly significant correlation between environmental concern and consumer’s attitudes toward green products.

The null hypothesis for the fourth hypothesis states that:

H4₀: Environmental knowledge does not significantly influence consumer’s attitudes toward green products.

H4₁: Environmental knowledge significantly influences consumer’s attitude toward green products.

As shown in Table 5, the null hypothesis can be rejected (p values=0.000 < 0.05, r= 0.318). There was a weak positive highly significant correlation between environmental knowledge and consumer’s attitudes toward green products.

The null hypothesis for the fifth hypothesis states that:

H5₀: Consumer’s attitudes toward green products have no important influence on purchase intention toward these products.

H5₁: Consumer’s attitudes toward green products significantly influence purchase intention toward these products.

As shown in Table 5, the null hypothesis can be rejected (p values=0.000 < 0.05, r= 0.758). There was a strong positive highly significant relationship between consumer’s attitudes toward green products and their intention to purchase these products.

Table 5. Correlation analysis

Variables		1	2	3	4	5	6
1. PBC	Pearson Correlation	1	-.365**	-.133*	.053	-.099	-.075
	Sig. (2-tailed)		.000	.035	.407	.119	.236
	N	251	251	251	251	251	251
2. SN	Pearson Correlation	-.365**	1	.139*	-.056	-.035	.016
	Sig. (2-tailed)	.000		.027	.378	.580	.800
	N	251	251	251	251	251	251
3. EC	Pearson Correlation	-.133*	.139*	1	.297**	.589**	.604**
	Sig. (2-tailed)	.035	.027		.000	.000	.000
	N	251	251	251	251	251	251
4. EK	Pearson Correlation	.053	-.056	.297**	1	.248**	.314**
	Sig. (2-tailed)	.407	.378	.000		.000	.000
	N	251	251	251	251	251	251
5. AGP	Pearson Correlation	-.099	-.035	.589**	.248**	1	.758**
	Sig. (2-tailed)	.119	.580	.000	.000		.000
	N	251	251	251	251	251	251
6. GPI	Pearson Correlation	-.075	.016	.604**	.314**	.758**	1
	Sig. (2-tailed)	.236	.800	.000	.000	.000	
	N	251	251	251	251	251	251

Note. Values are reported using the Spearman correlation. Abbreviations: NS = not statistically significant ($p > 0.05$), SS = statistically significant ($*p = < 0.05$).

Table 6. Hypotheses results

Hypothesis	P value and significances	Relationship r	Acceptance
H1: Perceived behavioral control significantly influences consumer's attitudes toward green products.	0.119(NS)	-0.099 Weak Negative	H1 rejected
H2: Subjective norms significantly influence consumer's attitudes toward green products.	0.580(NS)	-0.035 Weak Negative	H2 rejected
H3: Environmental concern significantly influences consumer's attitude toward green products.	0.00(HS)**	0.604 Moderate Positive	H3 accepted
H4: Environmental knowledge significantly influences consumer's attitude toward green products.	0.00(HS)**	0.318 Weak Positive	H4 accepted
H5: Consumer's attitudes toward green products significantly influences purchase intention toward these products.	0.00(HS)**	0.758 Strong Positive	H5 accepted

Abbreviations: NS = not statistically significant ($p > 0.05$), HS = highly significant (** $p = < 0.01$)

5. Discussion

The key purpose of the current study was to investigate the relationship between consumers' perceived behavioral control, subjective norms, environmental concern, environmental knowledge, and their intentions to purchase green products in Saudi Arabia. The mediating role of consumer attitude toward green products was also tested in this model. Perceived behavioral control, subjective norms, environmental concern, and environmental knowledge have been hypothesized to wield considerable effect on consumer attitude toward green products. Furthermore, consumer attitude toward green products has been hypothesized to have a considerable influence on the consumer's purchase intention toward green products. From the results of the current study, it is clear that environmental concern, environmental knowledge, and attitude toward green products are key factors that encourage consumers to purchase green products. Nevertheless, the results imply that perceived behavioral control and consumer attitude toward green products are not associated. This result corresponds with the outcomes of Nam et al. (2017) and Choi and Johnson (2019), which demonstrated no considerable impact of perceived behavioral control on attitude. In contrast to the TPB, which emphasizes the importance of perceived behavioral control as a significant predictor of behavioral intention, the current study findings do not demonstrate an important impact of perceived behavioral control on the attitude that mediates the correlation between perceived behavioral control and purchase intention. This outcome is incompatible with the results of Sreen et al. (2018), who found that PBC had a direct effect on consumer attitude toward green products. According to Ajzen (1991), the influence of PBC on purchase intention may differ among various groups of consumers. A product's price plays an essential role in a purchaser's choice, particularly for buyers who are not prepared to pay even more amount of cash for acquiring green products (Nam et al., 2017).

In situations when PBC have an effect on consumers' purchase intention toward green products, consumers' perceptions of control are high when they have more resources (such as money or time). As a result, their behavioral intentions rise. For that reason, it is presumed that the intention to purchase green products is greater when consumers perceive more control over the purchase of these products (Kim & Chung, 2011). For instance, consumers may perceive difficulties regarding purchasing green products since they are often priced higher than traditional products. The current study outcome is compatible with the findings of Varshneya et al. (2017), who illustrated that subjective norms have no direct influence on consumer attitude toward green products. However, it seems contrary to the outcomes of Tarkiainen and Sundqvist (2005) and Sreen et al. (2018) who emphasized the influence of subjective norms on consumer attitude toward green products. Subjective norms affecting the consumption patterns of green products are reflected in the values of family and friends (Memar & Ahmed, 2012).

However, the current study findings suggest that consumers are not affected by family or friends' consumption patterns or perceptions when they make a green purchase decision.

The results of the current study also reveal a highly significant relationship between environmental concern and consumer attitude toward green products. This is conforming with several previous findings, which have demonstrated that environmental concern has a considerable impact on consumer attitude toward green products (Jaiswal & Kant, 2018; Butt, 2017). Consumers who are highly concern about the environment hold powerful beliefs about the capability of their buying choices to influence the natural environment. They are also consumers who have favorable attitudes about buying green products. The current study demonstrates that participants are highly concerned about the environment. Consequently, marketers of green products may wish to advertise these products in relation to their contribution to protecting the environment. The current study findings indicate that consumers who identify themselves as environmentally knowledgeable have a positive attitude about purchasing green products. This result is not consistent with the results of Jaiswal and Kant (2018), who found no important influence of environmental knowledge on consumer attitude toward green products.

In order to benefit from consumers' environmental knowledge, companies can use initiatives such as encouraging the use of environmentally friendly bags instead of plastic bags by charging consumers if they choose to use plastic bags while shopping. Additionally, marketers of green products can provide evidence of green product features—such as energy savings, organic, or biochemicals—to satisfy the needs of consumers who favor green products. These features can also motivate consumers to participate to environmental conservation by buying the green product. The outcomes of the current study advocate the applicability of the TPB to understanding consumers' intentions to purchase green products. Therefore, the current study corroborates a number of previous studies (Chen & Chai, 2010; Gani, 2017; Jaiswal & Kant, 2018; Joshi & Rahman, 2015; Nam et al., 2017) that showed green purchase intention was completely and significantly driven by consumer attitude toward green products. The TPB states that “the more positive the attitude is toward a particular behavior, the (greater) the chances of an individual to perform that behavior” (Ajzen, 1991). This result supports previous studies indicating that attitude toward green products is responsible for the greatest impact on green purchase intention (Choi & Johnson, 2019; Sreen et al., 2018).

The current study has several practical implications for Saudi Vision 2030. Marketers of green products should use promotions to educate consumers about common environmental problems and boost their knowledge. For instance, existing environmental concerns could be displayed on the package of the product. In addition, marketers can generate advertising images that highlight how the buying of their environmentally friendly products will help to protect the environment. They may also benefit from consumers' inclination to use social media platforms by creating promotional campaigns to persuade consumers that purchasing green products will help improve the environment. Marketers should focus on young people because they represent the majority of consumers who are concerned about ecological issues and are willing to buy green products in the future. Marketers should also provide green products at reasonable prices to attract larger numbers of potential consumers. Government agencies should aim to attract investment from green-friendly brands and companies that align with 2030 vision objectives regarding environmental conservation, thereby benefiting from their sustainability efforts and products while also creating a thriving market for green products in Saudi Arabia. It is essential to reinforce green product innovation and afford green products that fulfill consumer anticipations and enhance consumers' purchasing intention.

6. Conclusion

The current study highlights the factors that influence consumer's intentions to purchase green products in Saudi Arabia. The findings reveal that attitude toward purchasing green products, environmental concern, and environmental knowledge are the main influencing factors, while perceived behavioral control and subjective norms do not considerably influence buying decisions. The lack of previous research examining why consumers do or do not purchase green products in Saudi Arabia will make this study useful to other researchers. Future work should involve further broadening the variables or collecting information from a more comprehensive sample of participants.

Acknowledgment

The authors are extremely grateful to all the associated personnel in any reference that contributed in/for the objective of the current study.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behaviour and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)

- Albino, V., Balice, A., & Dangelico, R. M. (2009). Environmental strategies and green product development: an overview on sustainability - driven companies. *Business Strategy and the Environment*, 18(2), 83–96. <https://doi.org/10.1002/bse.638>
- Ali, A., & Ahmad, I. (2012). Environment Friendly Products: Factors that Influence the Green Purchase Intentions of Pakistani Consumers. *Pakistan Journal of Engineering, Technology & Science*, 2(1), 84–117. <http://doi.org/10.22555/pjets.v2i1.697>
- Al-Nahdi, T. S. (2015). Factors Influencing the Intention to Purchase Real Estate in Saudi Arabia. Role of Public Service. *Journal of Applied Science and Agriculture*, 10(2), 1–11.
- Alwitt, L. F., & Pitts, R. E. (1996). Predicting purchase intentions for an environmentally sensitive product. *Journal of Consumer Psychology*, 5(1), 49–64. https://doi.org/10.1207/s15327663jcp0501_03
- Aman, A. H. L., Harun, A., & Hussein, Z. (2012). The Influence of Environmental Knowledge and Concern on Green Purchase Intention the Role of Attitude as a Mediating Variable. *British Journal of Arts and Social Sciences*, 7(2), 145–167.
- Ayodele, A. A., Panama, A. E., & Akemu, E. (2017). Green Awareness and Consumer Purchase Intention of Environmentally-Friendly Electrical Products in Anambra, Nigeria. *Journal of Economics and Sustainable Development*, 8(22), 98–112.
- Berger, I. E., & Corbin, R. M. (1992). Perceived consumer effectiveness and faith in others as moderators of environmentally responsible behaviors. *Journal of Public Policy & Marketing*, 11(2), 79–89. <https://doi.org/10.1177/074391569201100208>
- Blackwell, R. D., Miniard, P. W., & Engel, J. F. (2006). *Consumer Behavior* (10th ed.). Mason, OH: Thomson South-Western.
- Bockman, S., Razzouk, Y., & Sirotnik, B. (2009). Going green – from left to center stage: An empirical perspective. *Journal of the American Academy of Business*, 14(2), 8–17.
- Borin, N., Lindsey - Mullikin, J., & Krishnan, R. (2013). An analysis of consumer reactions to green strategies. *Journal of Product & Brand Management*, 22(2), 118–128. <https://doi.org/10.1108/10610421311320997>
- Bratt, C. (1999). The impact of norms and assumed consequences on recycling behavior. *Environment and behavior*, 31(5), 630–656. <https://doi.org/10.1177/00139169921972272>
- Bray, J., Johns, N., & Kilburn, D. (2011). An exploratory study into the factors impeding ethical consumption. *Journal of Business Ethics*, 98(4), 597–608. <https://doi.org/10.1007/s10551-010-0640-9>
- Bryman, A., & Bell, E. (2007). *Business Research Methods* (2nd ed.). New York, NY: Oxford University Press.
- Butt, A. (2017). Determinants of the Consumers Green Purchase Intention in Developing Countries. *Journal of Management Sciences*, 4(2), 217–236. <https://doi.org/10.20547/jms.2014.1704205>
- Chan, R. Y. K. (2001). Determinants of Chinese Consumers' Green Purchase Behavior. *Psychology & Marketing*, 18(4), 389–413. <https://doi.org/10.1002/mar.1013>
- Chen, T. B., & Chai, L. T. (2010). Attitude toward the environment and green products: consumers' perspective. *Management science and engineering*, 4(2), 27–39. <http://doi.org/10.3968/j.mse.1913035X20100402.002>
- Cherian, J., & Jacob, J. (2012). Green marketing: A study of consumers' attitude toward environment friendly products. *Asian social science*, 8(12), 117–126. <http://doi.org/10.5539/ass.v8n12p117>
- Choi, D., & Johnson, K. (2019). Influences of environmental and hedonic motivations on intention to purchase green products: An extension of the theory of planned behavior. *Sustainable Production and Consumption*, 18(3), 145–155. <https://doi.org/10.1016/j.sp.2019.02.001>
- Commission of the European Communities. (2001). *Green Paper on Integrated Product Policy*. Retrieved from http://eur-lex.europa.eu/LexUriServ/site/en/com/2001/com2001_0068en01.pdf.
- Curlo, E. (1999). Marketing strategy, product safety, and ethical factors in consumer choice. *Journal of Business Ethics*, 21(1), 37–48. <https://doi.org/10.1023/A:1005973306941>
- D'Souza, C., Taghian, M., Lamb, P., & Peretiatko, R. (2007). Green decisions: demographics and consumer understanding of environmental labels. *International Journal of Consumer Studies*, 31(4), 371–376. <https://doi.org/10.1111/j.1470-6431.2006.00567.x>
- Dunlap, R. E., & Jones, E. (2002). Environmental concern: Conceptual and measurement issues. In R. E. Dunlap,

- & W. Michelson (Eds.), *Handbook of environmental sociology* (pp. 482–542). Westport, CT: Greenwood Press.
- Durif, F., Boivin, C., & Julien, C. (2010). In search of a green product definition. *Innovative Marketing*, 6(1), 25–33.
- Eagly, A. H., & Chaiken, S. (2007). The advantages of an inclusive definition of attitude. *Social Cognition*, 25(5), 582–602. <https://doi.org/10.1521/soco.2007.25.5.582>
- Elkington, J., & Hailes, J. (1988). *The Green Consumer Guide*. London, United Kingdom: Victor Gollancz.
- Fryxell, G. E., & Lo, C. W. (2003). The influence of environmental knowledge and values on managerial behaviours on behalf of the environment: An empirical examination of managers in China. *Journal of business ethics*, 46(1), 45–69. <https://doi.org/10.1023/A:1024773012398>
- Gani, S. H. (2017). Purchase Intentions and Consumers Attitude toward Environment: A Study of Eco-friendly Products in FMCG Sector. *Arab Journal of Administration*, 37(3), 213–230.
- Grunert, S. C., & Juhl, H. J. (1995). Values, environmental attitudes, and buying of organic foods. *Journal of economic psychology*, 16(1), 39–62. [https://doi.org/10.1016/0167-4870\(94\)00034-8](https://doi.org/10.1016/0167-4870(94)00034-8)
- Gurău, C., & Ranchhod, A. (2005). International green marketing: A comparative study of British and Romanian firms. *International marketing review*, 22(5), 547–561.
- Handayani, W. (2017). Green Consumerism: An Eco-Friendly Behaviour Form Through the Green Product Consumption and Green Marketing. *Sinergi: Jurnal Ilmiah Ilmu Manajemen*, 7(2), 25–29. <https://doi.org/10.25139/sng.v7i2.364>
- Hartmann, P., & Ibanez, V. A. (2006). Green value added. *Marketing Intelligence & Planning*, 24(7), 673–680. <https://doi.org/10.1108/02634500610711842>
- Hasan, Z., & Ali, N. A. (2015). The Impact of green marketing strategy on the firm's performance in Malaysia. *Procedia - Social and Behavioral Sciences*, 172(27), 463–470. <https://doi.org/10.1016/j.sbspro.2015.01.382>
- Hawkins, D. I., & Mothersbaugh, D. L. (2010). *Consumer Behaviour: Building Marketing Strategy* (11th ed.). New York, NY: McGraw Hill.
- Hines, J. M., Hungerford, H. R., & Tomera, A. N. (1987). Analysis and synthesis of research on responsible environmental behavior: A meta-analysis. *The Journal of environmental education*, 18(2), 1–8. <https://doi.org/10.1080/00958964.1987.9943482>
- Huang, Y. C., Yang, M., & Wang, Y. C. (2014). Effects of green brand on green purchase intention. *Marketing Intelligence & Planning*, 32(3), 250–268. <https://doi.org/10.1108/MIP-10-2012-0105>
- Jaiswal, D., & Kant, R. (2018). Green purchasing behaviour: A conceptual framework and empirical investigation of Indian consumers. *Journal of Retailing and Consumer Services*, 41, 60–69. <https://doi.org/10.1016/j.jretconser.2017.11.008>
- Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review*, 3(1-2), 128–143. <https://doi.org/10.1016/j.ism.2015.04.001>
- Kabadayı, E. T., Dursun, İ., Alan, A. K., & Tuğer, A. T. (2015). Green purchase intention of young Turkish Consumers: effects of consumer's guilt, self-monitoring and perceived consumer effectiveness. *Procedia-Social and Behavioral Sciences*, 207, 165–174. <https://doi.org/10.1016/j.sbspro.2015.10.167>
- Khaola, P. P., Potiane, B., & Mokhehi, M. (2014). Environmental concern, attitude towards green products and green purchase intentions of consumers in Lesotho. *Ethiopian Journal of Environmental Studies and Management*, 7(4), 361–370. <https://doi.org/10.4314/ejesm.v7i4.3>
- Kim, H. Y., & Chung, J. E. (2011). Consumer purchase intention for organic personal care products. *Journal of consumer Marketing*, 28(1), 40–47. <https://doi.org/10.1108/07363761111101930>
- Kumar, B., Manrai, A., & Manrai, L. (2017). Purchasing behaviour for environmentally sustainable products: a conceptual framework and empirical study. *Journal of Retailing and Consumer Services*, 34, 1–9. <https://doi.org/10.1016/j.jretconser.2016.09.004>
- Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18(6), 503–520. <https://doi.org/10.1108/EUM00000000006155>

- Lee, Y. K. (2008). Opportunities for green marketing: young consumers. *Marketing Intelligence & Planning*, 2(6), 573–586. <https://doi.org/10.1108/02634500810902839>
- Lee, Y. K. (2017). A comparative study of green purchase intention between Korean and Chinese consumers: The moderating role of collectivism. *Sustainability*, 9(10), 1930. <https://doi.org/10.3390/su9101930>
- Li, Y. (2018). Effect of marketing information on purchase intention for proenvironmental products in China. *Social Behavior and Personality*, 46(7), 1215–1232. <https://doi.org/10.2224/sbp.7491>
- Liu, M. S., & Wu, S. D. (2009). Green supplier assessment: a case study of the fire extinguisher industry. *Journal of American Academy of Business*, 14(2), 104–111.
- Ljungberg, L. Y. (2007). Materials selection and design for development of sustainable products. *Materials and Design*, 28(2), 466–479. <https://doi.org/10.1016/j.matdes.2005.09.006>
- Luttropp, C., & Lagerstedt, J. (2006). EcoDesign and the ten golden rules: generic advice for merging environmental aspects into product development. *Journal of Cleaner Production*, 14(15-16), 1396–1408. <https://doi.org/10.1016/j.jclepro.2005.11.022>
- Memar, N., & Ahmed, S. A. (2012). *Determinants which Influence the Consumers' Green Purchasing Intention* (Master's thesis, Mälardalen University, Västerås, Sweden). Retrieved from <http://www.diva-portal.org/smash/get/diva2:538647/FULLTEXT01.pdf>
- Mostafa, M. M. (2006). Antecedents of Egyptian consumers' green purchase intentions: A hierarchical multivariate regression model. *Journal of International Consumer Marketing*, 19(2), 97–126. https://doi.org/10.1300/J046v19n02_06
- Mostafa, M. M. (2007). Gender differences in Egyptian consumers' green purchase behaviour: the effects of environmental knowledge, concern and attitude. *International Journal of Consumer Studies*, 31(3), 220–229. <https://doi.org/10.1111/j.1470-6431.2006.00523.x>
- Nadaf, Y., & Nadaf, S. (2014). Corporate Social Responsibility: Issues Challenges and Strategies for Indian Firms. *IOSR Journal of Business and Management*, 16(5), 51–56. <https://doi.org/10.9790/487X-16535156>
- Nam, C., Dong, H., & Lee, Y. (2017). Factors influencing consumers' purchase intention of green sportswear. *Fashion and Textiles*, 4(1), 2. <https://doi.org/10.1186/s40691-017-0091-3>
- Nik A. R., (2009). Awareness of Eco-label in Malaysia's Green Marketing Initiative. *International Journal of Business and Management*, 4(8), 132–141. <https://doi.org/10.5539/ijbm.v4n8p132>
- O'Neal, P.W. (2007). *Motivation of Health Behavior*. Nova Science Publishers, Inc., New York, NY
- Ottman, J. A. (1992). Industry's response to green consumerism. *Journal of Business Strategy*, 13(4), 3–7. <https://doi.org/10.1108/eb039498>
- Ottman, J. A., Stafford, E. R., & Hartman, C. L. (2006). Avoiding green marketing myopia: Ways to improve consumer appeal for environmentally preferable products. *Environment: science and policy for sustainable development*, 48(5), 22–36. <https://doi.org/10.3200/ENVT.48.5.22-36>
- Polit, D. F., & Hungler, B. P. (1999). *Nursing Research: Principles and Methods* (6th ed.). New York, NY: Lippincott.
- Polonsky, M. J. (1994). An introduction to green marketing. *Electronic green journal*, 1(2). <https://doi.org/10.5070/G31210177>
- Rahman, H. A. (2018). Green Consumerism (KEPENGUNAAN HIJAU). *Asian Journal of Environment, History and Heritage*, 2(2), 43–54.
- Ritter, Á. M., Borchardt, M., Vaccaro, G. L. R., Pereira, G. M., & Almeida, F. (2015). Motivations for promoting the consumption of green products in an emerging country: Exploring attitudes of Brazilian consumers. *Journal of Cleaner Production*, 106, 507–520. <https://doi.org/10.1016/j.jclepro.2014.11.066>
- Sarumathi, S. (2014). Green purchase behavior—a conceptual framework of socially conscious consumer behavior. *Global Journal of Finance and Management*, 6(8), 777–782.
- Saudi Vision 2030 [Internet]. *Vision2030.gov.sa*. 2019. Retrieved from <https://www.vision2030.gov.sa/ar/v2030/a-sustainable-saudi-vision/>
- Saunders, M., Lewis, P., & Thornhill, A. (2003). *Research Methods for Business Students* (3rd ed.). Essex, United Kingdom: Pearson Education Limited.

- Schmeltz, L. (2012). Consumer-oriented CSR communication: focusing on ability or morality?. *Corporate Communications: An International Journal*, 17(1), 29-49. <https://doi.org/10.1108/13563281211196344>
- Shabbir, M. S., Kirmani, S., Iqbal, J., & Khan B. (2009). COO and Brand Name's Affect on Consumer Behavior. *Interdisciplinary Journal of Contemporary Research in Business*, 1(3), 84-95. <https://doi.org/10.20469/ijbas.5.10002-1>
- Simon, F. L. (1992). Marketing green products in the triad. *Columbia Journal of World Business*, 27(3-4), 268-285.
- Singh, S., Singh, D., & Thakur, K. S. (2014). Consumer's Attitude and Purchase Intention toward Green Products in the FMCG Sector. *Pacific Business Review International*, 7(6), 27-46.
- Soonthonsmai, V. (2001). *Predicting Intention and Behaviour to Purchase Environmentally Sound or Green Products among Thai Consumers: An Application of the Theory of Reasoned Action*. Nova Southeastern University, Florida, United States.
- Sreen, N., Purbey, S., & Sadarangani, P. (2018). Impact of culture, behavior and gender on green purchase intention. *Journal of Retailing and Consumer Services*, 41, 177-189. <https://doi.org/10.1016/j.jretconser.2017.12.002>
- Sudiyanti, S. (2009). *Predicting women purchase intention for green food products in Indonesia* (Master's thesis, University of Agder. Kristiansand, Norway). Retrieved from <https://uia.brage.unit.no/uia-xmlui/bitstream/handle/11250/135342/Sudiyanti%20Sudiyanti.pdf?sequence=1>
- Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management*, 5(2), 18-27. <http://doi.org/10.2139/ssrn.3205035>
- Tarkiainen, A., & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British food journal*, 107(11), 808-822. <http://doi.org/10.1108/00070700510629760>
- Trivedi, R. H., Patel, J. D., & Acharya, N. (2018). Causality analysis of media influence on environmental attitude, intention and behaviors leading to green purchasing. *Journal of cleaner production*, 196, 11-22. <http://doi.org/10.1016/j.jclepro.2018.06.024>
- Varshneya, G., Pandey, S. K., & Das, G. (2017). Impact of social influence and green consumption values on purchase intention of organic clothing: a study on collectivist developing economy. *Global Business Review*, 18(2), 478-492. <https://doi.org/10.1177/0972150916668620>
- Wang, H., Ma, B., & Bai, R. (2019). How Does Green Product Knowledge Effectively Promote Green Purchase Intention?. *Sustainability*, 11(4), 1193. <https://doi.org/10.3390/su11041193>
- Wang, X., & Yang, Z. (2008). Does country-of-origin matter in the relationship between brand personality and purchase intention in emerging economies? Evidence from China's auto industry. *International Marketing Review*, 25(4), 458-474. <https://doi.org/10.1108/02651330810887495>
- Wee, Y. S., & Quazi, H. A. (2005). "Development and validation of critical factors of environmental management". *Industrial Management & Data Systems*, 105(1), 96-114. <https://doi.org/10.1108/02635570510575216>
- Yaacob, M. R., & Zakaria, A. (2011). Customers' Awareness, Perception and Future Prospects of Green Products in Pahang, Malaysia. *The Journal of Commerce*, 3(2), 1-10.
- Yadav, R., & Pathak, G. S. (2016). Young consumers' intention toward buying green products in a developing nation: extending the theory of planned behavior. *Journal of Cleaner Production*, 135, 732-739. <https://doi.org/10.1016/j.jclepro.2016.06.120>
- Yan, Y. K., & Yazdanifard, R. (2014). The concept of green marketing and green product development on consumer buying approach. *Global Journal of Commerce & Management Perspective*, 3(2), 33-38.
- Yang, Y. C. (2017). Consumer Behavior toward Green Products. *Journal of Economics, Business and Management*, 5(4), 160-167. <https://doi.org/10.18178/joebm.2017.5.4.505>
- Yong, N. L., Ariffin, S. K., Nee, G. Y., & Wahid, N. A. (2017). A study of factors influencing consumer's purchase intention toward green vehicles: evidence from Malaysia. *Global Business and Management Research*, 9(4s), 281-297.
- Yunus, M., & Rahman, M. (2014). Green Marketing for Creating Awareness for Green Consumerism. *Global Disclosure of Economics and Business*, 3(1), 18-22. <https://doi.org/10.18034/gdeb.v3i1.167>

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business Research Methods* (9th ed.). Toronto, Canada: Nelson Education, Ltd.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).