

THE IMPACT OF GREEN MARKETING ON CONSUMER PURCHASING BEHAVIOR; APPLICATION ON FOOD & BEVERAGE SECTOR IN THE EGYPTIAN MARKET

Amr Samir Aly

American college of the Middle East, Kuwait.

amr.aly@acm.edu.kw

Abstract— This research aims to examine the impact of green marketing on consumer purchasing behavior in the food and beverage sector in the Egyptian market. Reviewing the literature allowed the researchers to develop a conceptual framework to clarify the assumed impact of environmental awareness, green products features, the price of green products, and the promotion of green products on consumer purchasing behavior in the food and beverage sector in the Egyptian market. An empirical study based on a mono-quantitative method has been applied by conducting a questionnaire covering 384 Egyptian consumers to collect data that can be statistically analyzed to examine the relationships between the research variables and test the research hypotheses. The correlation analysis results indicate that there are statistically significant relationships between environmental awareness, the green products' features, the price of green products, the promotion of green products, and consumer purchasing behavior for the selected sample in the Egyptian market, ranging from $r = .726, p < 0.01$ to $r = .764, p < .01$. Concurrently, the multiple regression analysis results clarified that the independent variables of the research explain approximately 76.8 percent of the variance of consumer purchasing behavior (adjusted $R^2 = .768$). The research recommends business leaders understand the profiles of green Egyptian consumers and design marketing strategies targeting this specific segment to open up new market opportunities, expand product ranges, and gain many benefits of green philosophy adoption.

Index Terms— *Green marketing, Green purchasing behavior, Environmental awareness, Green marketing mix, Sustainability, Sustainable development.*

INTRODUCTION

The current economic activities have led to a dramatic degradation of the environment and negatively affected future generations who will not be able to utilize natural resources that are essential for economic well-being and equality of life (Noo-urai & Jaroenwisan, 2016). These environmental issues, such as depletion of non-renewable resources, climate change, global warming, and increased air pollution place unsustainable stresses on ecosystems (Siddique & Hossain, 2018). Due to the seriousness of these environmental issues, the growing level of

consumers' environmental awareness, the claims of numerous stakeholders such as governments, NGOs, and intergovernmental organizations toward adopting sustainability, and the significant role of multinational companies in implementing the sustainable development, the green movement was established (Burritt et al., 2018).

A green marketing phenomenon has emerged from the movement to protect the environment combined with a positive change in consumer behavior towards eco-friendly products. A green marketing strategy is one that supports sustainable business practices. This entails the promotion of eco-friendly goods and services and encourages environmental protection in a sustainable manner (Govender & Govender, 2016). Consequently, environmental and health issues obliged organizations and marketers to consider green practices which can be more environmentally efficient for consumers and the earth (Alharthey, 2019). Many businesses are now operating in a more sustainable way. Instead of the emphasis being entirely on profit, many businesses have decided to manage their business performance in terms of people and the planet at the same time (Cuculeski et al., 2016).

Environmental awareness has not only grabbed a global interest now, but it has become a demanding issue in academic research (Saifur Rahman et al., 2017). Research in this field shows that green products are in great demand, and consumers are taking advantage of green practices that are least harmful to the environment (Alharthey, 2019). Recently, consumers prefer to purchase products from firms that give more attention to the environment. Conventional marketing is progressively unable to adapt to the environmental challenges that threaten humankind (Noo-urai & Jaroenwisan, 2016).

The present research has focused on green marketing. There are other synonyms of this concept, such as societal marketing, environmental marketing, ecological marketing and sustainable marketing. Nevertheless, green marketing is regarded as one of the more commonly accepted terms in marketing, and all these terms are meant as a declaration of marketing's commitment to sustainability (Arunachalam, 2015).

Problem of research

The movement toward green marketing is growing at a high speed worldwide (Siddique & Hossain, 2018). Increasingly, consumers care whether companies pollute the environment when they produce, and if products contain harmful ingredients (Katrandjiev, 2016). Consumers now care about environmental protection, and safety procedures. Therefore, they intentionally purchase those products which are friendlier to the environment (Rizwan & Danish, 2017).

On the other hand, the shift from traditional to sustainable business practices requires fundamental changes toward green marketing practices. Companies need to apply different tools to become more sustainable such as: selecting the most sustainable suppliers, using renewable energy sources and recyclables, and reducing and redesigning excessive packaging (Van de Voorde, 2017).

As a result of the gradual popularity of adopting green behavior, understanding the consumer perception and purchase behaviors should be taken into consideration by all companies. In

addition, understanding the green profile of consumers enables business leaders to develop a customized marketing mix targeting this segment (Govender & Govender, 2016). The marketers need to investigate consumer behavior to get a better sense of the consumers' needs, perceptions, expectations, and subsequent buying behavior (Kotler, 2012).

Significance of research

Through reviewing the literature, and by comparing the situation in Egypt to what has been happening in the developed countries, it is notable that in Egypt as well as the other Arab countries, there is an increasing sense of green awakening among consumers. As a result, little is known about consumers' purchasing behavior in this region regarding environmentally friendly products (Mostafa, 2006). This also proves the fact that the environmental implications of Egyptian companies have not been seriously considered until recently (Aboud & Diab, 2019).

Therefore, this is the right timing to deeply investigate Egyptian consumer behavior through examining the factors that may motivate the embracing of green behavior. The importance of this study lies in its attempt to address the lack of research regarding consumer awareness and purchasing behaviors regarding green products in Egypt. The research improves the understanding of green marketing practices and how these practices will be beneficial for the environment, companies, and consumers. The research is especially beneficial to business leaders, as it highlights the key determinants that affect consumer buying behavior towards green products in Egypt. Consequently, helping companies to develop a proper green marketing mix and to identify the green profile of Egyptian consumers that allow marketers to create strategies to target this segment particularly.

OBJECTIVES OF RESEARCH

The main aim of the research is to examine the impact of green marketing on consumer purchasing behavior in the food and beverage sector in the Egyptian market. From this objective, the researchers derive the following sub-objectives:

- 1- To verify the level of environmental awareness of Egyptian consumers about green products and examine the impact of this awareness on their purchasing behavior.
- 2- To examine the impact of green food and beverage products features on the consumer purchasing behavior in the Egyptian market.
- 3- To examine the impact of the price of green food and beverage products on the consumer purchasing behavior in the Egyptian market.
- 4- To examine the impact of the promotion of green food and beverage products on the consumer purchasing behavior in the Egyptian market.
- 5- To recognize the purchasing behavior of consumers in the Egyptian market when buying green food and beverage products.

LITERATURE REVIEW

Evolution of green marketing

According to Peattie (2001), over time, green marketing has evolved into what it is today. The author argues that this evolution goes through three phases: (1) "Ecological" green marketing, the focus in this phase was relatively narrow by highlighting only the ecological problems such as oil depletion, air pollution, water pollution, harming the ecosystem by using pesticides/herbicides, etc.); (2) "environmental" green marketing, in this stage the focus was wider through designing new technology to produce new innovative products which reduce environmental damage and to consider as sources of competitive advantage; (3) "sustainability" green marketing, in this phase there has been a significant change towards adopting innovative marketing strategies aiming to avoid the harmful ecological influences of unsustainable consumption and production (Katrandjiev, 2016; Bukhari, 2011).

In the same context, Katrandjiev (2016) argues that there are four phases of green marketing development: (1) embryo stage (pre-1974); (2) ecological marketing (1975-1989); (3) green marketing (1990-2000); (4) sustainable marketing (post-2000).

The green marketing concept was discussed for the first time in 1976, during a workshop organized by the AMA (American Marketing Association), namely "A Guide to Ecological Marketing." An attempt was made to gather a group of experts, practitioners, academics, and policy makers to discuss the marketing's influence on the environment. This workshop examined the effects of marketing practices on environmental pollution, energy depletion, and non-energy resources depletion to introduce the concept of green marketing (Saifur Rahman et al., 2017; Delafrooz et al., 2014).

Green marketing concept

The formulation of a widely accepted definition that encompasses all dimensions of such a broad concept as green marketing has been identified as challenging (Arunachalam, 2015). The green marketing concept is widely misunderstood as only promoting products that are environmentally friendly (Polonsky, 1994).

Green marketing is commonly thought of as selling environmentally friendly products, e.g., phosphate-free, recyclable, refillable, ozone-friendly, eco-friendly; however, these are merely green marketing claims (Mourad & Serag Eldin Ahmed, 2012; Fonseca, 2015; El-Deep & El-Sayd, 2017). However, compared to traditional marketing, green marketing covers more aspects, such as changes in production processes, product modifications, brand modifications such as logos and packaging, as well as advertising modifications. This applies to industries, consumer products as well as services (Polonsky, 1994; Chen, 2009; Mourad & Serag Eldin Ahmed, 2012; Fonseca, 2015; El-Deep & El-Sayd, 2017).

According to Ansar (2013), a green marketing strategy is similar to conventional marketing, except it involves producing, pricing, and promoting products that meet consumers'

environmental preferences. From a branding perspective, Kaadoor (2020) argued that green marketing is a crucial factor that can reshape consumers' perceptions toward green products and build a unique image and name for a particular brand in consumers' minds. Schena, Netti, and Russo (2015) claimed that green marketing consists of all the activities aimed to fulfill consumers' needs and desires so that satisfying these needs does not adversely influence the environment.

Green marketing is the most common term used in the literature to describe marketing practices aiming at reducing adverse social and environmental influences on businesses' operations. However, along with "green" marketing, other related concepts such as ecological marketing, environmental marketing, and sustainable marketing are also introduced (Katrandjiev, 2016).

Many researchers argue that the term "green marketing" can be interchangeably used with other terms such as "ecological marketing," "environmental marketing," and "sustainable marketing" as the ultimate goal of any of them is to produce and promote products that have a less undesirable influence on the environment while concurrently heartening consumers to protect and support the environment through adopting a green lifestyle (Govender & Govender, 2016; Cherian & Jacob, 2012; Polonsky, 2011; Tantawi et al., 2009).

Green purchasing behavior

Green purchasing behavior refers to the consumption of green goods and services and averting products that have harmful impact on the environment. It's related to fulfilling consumers' needs without harming the environment and contributing toward a sustainable world (Soomro et al., 2020).

Many studies found that the theory of reasoned action and the theory of planned behavior played a primary role in explaining green consumer behavior. Both theories have been used for studying consumer attitudes, intentions, and actual purchasing behavior regarding green products. Even though, it was repeatedly observed that consumers are likely to display a favorable attitude towards buying green products but not to truly buy such products, this discrepancy in attitude-behavior for green purchase is commonly known as the attitude-behavior gap (Adrita & Mohiuddin, 2020).

It was argued that a significant part of the responsibility towards sustainable development requires to be endured by consumers rather than producers, as through their preferences, they decide what products and services should be produced. On the other hand, to change consumers' behaviors and lifestyles towards adopting greener choices, it is crucial that corporates, governments, and society support the issue altogether. Although each of the aforementioned players has an essential role in the changing process, corporates are supposed to act a substantial role in the triangle of change through studying and understanding the various factors that might motivate consumers to opt for green choices when making purchasing decisions (Nawroz, 2014).

Environmental awareness and consumer behavior

The level of environmental awareness of a person has long been regarded as a significant indicator of their pro-environmental behavior (Adrita & Mohiuddin, 2020). Numerous researchers have studied the extent to which consumers are aware of environmental issues and how this awareness influences their attitudes and behavior.

Soomro et al., (2020) found a significant correlation between environmental knowledge and green purchasing behavior. Vicente-Molina et al., (2013) pointed out the significant role of environmental knowledge in affecting consumer attitudes and behavior. Jaiswal and Kant (2018) claimed that environmental awareness could be used to explain the consumers' behavior purchasing environmentally friendly products. Similarly, using a case study in the United Arab Emirates, Khaleeli and Jawabri (2021) determined that environmental awareness influences consumer attitudes toward green products and green buying intentions.

Rahbar and Abdul Wahid (2011) discovered that a low level of environmental awareness restricts consumers from buying green products. Mostafa (2006) highlighted the role of environmental knowledge in forming a green purchase intention.

In a study conducted by Mohiuddin et al., (2018) on emerging markets. They pointed out the strong correlation between environmental knowledge and awareness and adopting favorable behavior toward purchasing green vehicles.

In summary, and considering the aforementioned studies' findings, environmental knowledge and awareness are found to be significantly and positively related to environmental consumers' attitudes and behavior; however, this relationship is not always strong (Kaadoor, 2020). On the contrary, a few studies claim otherwise. Kumar et al., (2017) referred to a weak relationship between environmental awareness and green buying intentions. Joshi and Rahman (2015) claimed that environmental knowledge did not influence buying fuel-efficient vehicles. Paradowska (2014) argued that environmentally-conscious consumers are not necessarily more likely to purchase eco-friendly products due to their high environmental knowledge. Therefore, and based on the review above. Research on environmental awareness and its relation to green consumer attitudes and behavior shows some contradictory findings. In addition, some evidence exists that environmental awareness may vary across age, gender, level of education, or place of residence (Kaadoor, 2020). This triggers the need for further research in this area to gain more clear insights into such relationships. Therefore, the first hypothesis is formulated as follows:

Hypothesis 1:

H₁₋₀: There is no relationship between environmental awareness and consumer purchasing behavior of food and beverage products in the Egyptian market.

H_{1-a}: There is a significant and positive relationship between environmental awareness and consumer purchasing behavior of green food and beverage products in the Egyptian market.

Green product

According to Sdrolia and Zarotiadis (2018), even though the concept of green products frequently appears throughout the literature, yet it often lacks a clear and unified definition. They reviewed 51 articles published from 1975 to 2017 in their research. They have introduced more

than fifty definitions of green products; some of them have been used in the present research. According to De Medeiros & Ribeiro (2017), a green product, or sustainable product, adds long-term value and reduces consumer pressure on the environment without sacrificing product satisfaction. Green products are products that have minimal or no harmful impacts on the environment compared to conventional products substitutes in the same product category (Moser, 2016). Johnstone & Tan (2015) have defined green products as products perceived by consumers to be environmentally-friendly because of their specific material, the manufacturing process, ingredients, packaging, marketing tactics, etc. A green product is a product designed in an environmentally-friendly way, having minimal negative effects; the product can be recycled, and saves natural resources (Diglel & Yazdanifard, 2014).

Diglel and Yazdanifard (2014) stated that consumers always favor green products, as they consider them healthier and of higher quality, and help protect the environment. Based on the previous review, the second hypothesis is formulated as follows:

Hypothesis 2:

H2-0: There is no relationship between green products features and consumer purchasing behavior of green food and beverage products in the Egyptian market.

H2-a: There is a significant and positive relationship between green products features and consumer purchasing behavior of green food and beverage products in the Egyptian market.

Green price

Green price is a crucial factor to be considered by consumers when purchasing green products as eco-friendly and harmless products (Al-Majali & Tarabieh, 2020).

Reviewing the literature reveals contradicting findings regarding the nature of the connection between green prices and consumer purchasing behavior. According to Anvar (2014), the younger generation in South Africa is increasingly demanding green goods and services. They have stronger purchasing power and are able to pay a higher price for green products. Boztepe (2012) has conducted a questionnaire on 540 consumers in Istanbul. He noticed that consumers are more able to spend more to purchase green products to protect the environment against environmental pollution that threatens the planet along with advanced technology and industrialization.

In support of that, Soomro et al., (2020), in their study about Pakistani consumers, argued that generally, high prices discourage customers from buying any type of product. However, in their research, they stated that those with environmental awareness don't mind paying more for green goods and services. They pointed out that for consumers who have a high level of greenness behavior, price is not a key barrier. Instead, they are keen to expend more for purchasing green products.

On the contrary, various studies observed a negative connection between high prices and green buying behavior. Bukhari (2011), in his study conducted in Kashmir, assumes that price is the key factor of why consumers do not purchase green products as they consider such products to be expensive. Abzari et al., (2013) confirmed the same result in their study conducted in Iran by referring to the price of green products as a key cause for not purchasing such products because

of their high cost of processing and production. Similarly, Grimmer and Bingham (2013) found that no matter what an individual's personal environmental values are, consumers have an increased willingness to buy from firms that adopt an environmental approach if the product price is low.

Having presented the criteria concerning the previously mentioned constructs, the third hypothesis is formulated as follows:

Hypothesis 3:

H₃₋₀: There is no relationship between the price of green products and consumer purchasing behavior of green food and beverage products in the Egyptian market.

H_{3-a}: There is a significant relationship between the price of green products and consumer purchasing behavior of green food and beverage products in the Egyptian market.

Green promotion

Promotion is a key effective factor that contributes to the success of green products through transferring all the important related information and sharing the environmental characteristics of the product and the production process with potential consumers (Al-Majali & Tarabieh, 2020).

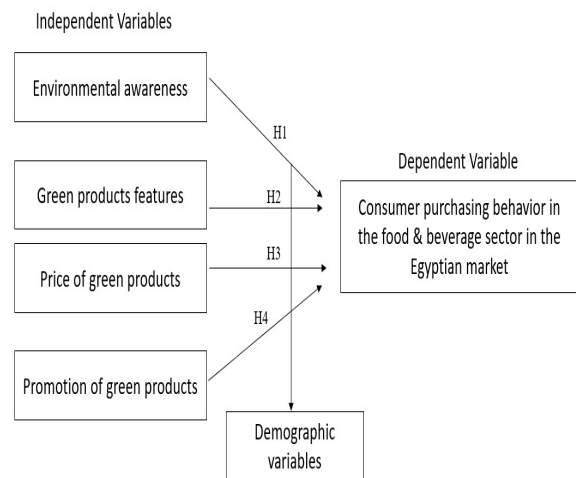
Many green businesses have started to use several innovative promotional techniques to appeal consumers' attention to green products. The product package was an effective tool to contain, identify, protect and display information about green products. Furthermore, emotional ads substantially impact consumers' behaviors and encourage them to buy green products (Al-Majali & Tarabieh, 2020).

The prime aim of green advertisements is influencing consumers' behavior to purchase green products that have minimal effect on the environment and to emphasize the favorable consequences of their green behavior (El-Deep & El-Sayd, 2017).

Green ads emphasize how products use fewer resources and energy in the manufacturing process, use sustainable resources, and have a minimal influence on society and the environment. These green messages encourage consumers to purchase green products (Siddique and Hossain, 2018). In contrast, lack of communication is considered as a

key factor for business failure of environmentally friendly products as it's crucial to create a favorable attitude and behavior towards green consumption (Cherian & Jacob, 2012).

The green advertising messages can have a positive influence on public environmental attitudes and consumer purchase behavior. Ansar (2013) describes how advertising for green products can significantly increase consumers' knowledge. Therefore, these environmental advertisements, if implemented, will probably positively influence green buying decisions. Lee (2014), in his study



conducted in the Hong Kong market claimed that environmental messages communicated by media influence the purchasing behavior of consumers towards green products positively. According to Agyeman (2014), consumers' decisions to purchase organic products can be influenced by the packaging of the products. Therefore, environmental advertisements create an incentive for consumers to purchase green products. Due to what has been described, the fourth hypothesis is formulated as follows:

Hypothesis 4:

H₄₋₀: There is no relationship between the promotion of green products and consumer purchasing behavior of green food and beverage products in the Egyptian market.

H_{4-a}: There is a significant and positive relationship between the promotion of green products and consumer purchasing behavior of green food and beverage products in the Egyptian market.

The researchers also suggest the following hypothesis as a last hypothesis:

Hypothesis 5:

H₅₋₀: Demographic variables do not moderate the relationship between green marketing strategies and consumer engagement with green products and services.

H_{5-a}: Demographic variables significantly moderate the relationship between green marketing strategies and consumer engagement with green products and services.

Conceptual framework

Review of the literature has identified various green marketing variables that affect consumer purchasing behavior. Therefore, the researchers developed a conceptual framework to clarify the assumed influence of green marketing on consumer purchasing behavior. This conceptual model is illustrated in Figure 1.

Figure 1: Conceptual Framework of Green Marketing's impact on Consumer Purchasing Behavior

Research methodology

The current research employs mono quantitative research method, primarily utilizing a questionnaire to collect quantitative data. The goal is to determine the relationships among variables, and test the research hypotheses. The design of the study is cross-sectional. This involves studying and collecting data about the impact of green marketing on Consumer Purchasing Behavior in the Egyptian market at one specific point of time across a population sample through using a single questionnaire once and not repetitive observations over time (Saunders et al., 2015).

A convenience sampling technique has been applied where the research sample was chosen from a group of consumers who were visiting three key hypermarkets in Cairo where it was easy

to contact or reach them. By surveying the respondents, the researchers could determine how green marketing practices influenced their purchasing behavior.

RESEARCH FINDINGS

Demographic characteristics of the main sample

Demographic characteristics of the sample includes gender, age, marital status, level of education, and monthly family income. Table 1 illustrates these characteristics:

Table 1: Demographic characteristics of the sample

Characteristics	Value	Frequency	%
Gender	Male	221	57.6
	Female	163	42.4
Age	Up to 20 years old	14	3.6
	Between 21 to 30 years old	150	39.1
	Between 31 to 45 years old	140	36.5
	Over 45 years old	80	20.8
Marital Status	Single	75	19.5
	Married	39	10.2
	Married with children	247	64.3
	Widowed / divorced	16	4.2
	Widowed / Divorced with children	7	1.8
Level of education	High school	68	17.7
	Bachelor's degree	299	77.8
	Master's degree or above	17	4.5
Monthly family income	Less than 5000 pounds	281	73.2
	Between 5000 and 15000 pounds	59	15.4
	Between 15000 and 30000 pounds	29	7.6
	More than 30000 pounds	15	3.9
Total		384	100

Descriptive analysis of the sample

By conducting the descriptive analysis of the independent variables, the researchers can order these variables according to the level of agreement from the respective sample as follows:

First: "Green products features". The attitude of responses tended to be "Agree". The majority of the sample confirmed the crucial role of the products features, such as the ability to be recycled, having an eco-friendly label and package, and having natural ingredients when deciding to buy a specific product. They agree that green products provide higher quality than conventional ones.

Second: "Promotion of green products". The attitude of responses tended to be "Slightly Agree". The majority of respondents affirmed the important role of the green products promotion in increasing their consumption. Meanwhile, they agreed that companies need to pay more attention to the promotion of green products. They agreed that they would switch to green products if there were promotional deals in the stores where they buy these products.

Third: "Price of green products". The attitude of responses tended to be "Slightly Agree". The majority of respondents are neutral towards believing that green products are more expensive than conventional products. They also believe that these products are normally bought by high-income people only. There are neutral as well regarding believing that price is more important than a product's impact on the environment when making a purchasing decision. Meanwhile, almost 65 percent of respondents slightly agree that they would pay a premium price for green products.

Fourth: "Environmental awareness". The attitude of responses tended to be "Neutral". Meanwhile, nearly 70 percent of the respondents slightly agree that they have awareness and understanding of green marketing and support green marketing practices and sustainable development.

The descriptive analysis of the dependent variable "consumer purchasing behavior in the food and beverage sector in Egyptian market" shows that the mean of responses is 5.71 with a relative mean of 81.6 percent and the standard deviation of 0.84, and the attitude of responses tended to be "Agree". The majority of respondents agreed that green food and beverage products are the most preferred for them to buy among the other green products categories, they prefer to buy these products from physical stores, and they believe that green food and beverage products are accessible and available in supermarkets. More than 80 percent of respondents agreed that they would be frequent consumers of green food and beverage products in the near future.

The 1st factor that influences the decision to purchase green food and beverage products is brand, followed by product attribute, then special offer or promotion, and lastly price.

The 1st effective promotional method that affects the decision when buying green food and beverage products is: TV advertisement, followed by referral from friends and family, then in-store ads, and lastly online marketing/special media.

Testing research hypotheses

To test the research hypotheses, the researchers conducted a correlation analysis among the research variables. In addition to that, the researchers conducted a multiple regression analysis to examine if variation in consumer purchasing behavior of green food and beverage products in the Egyptian market can be explained in terms of variation in environmental awareness, green products features, price of the green products, and promotion of the green products.

Pearson correlation analysis

Table 2: Pearson correlation analysis

	X ₁	X ₂	X ₃	X ₄	Y
X ₁ Environmental awareness	1				
X ₂ Green products features	.570**	1			
X ₃ Price of green products	.763**	.549**	1		
X ₄ Promotion of green products	.644**	.692**	.654**	1	
Y Consumer purchasing behavior in food and beverage sector	.761**	.726**	.764**	.756**	1

** . Correlation is significant at the 0.01 level (2-tailed).

From table (2), the researchers concluded that:

There is a significant and strong positive relationship between "consumer purchasing behavior in the food and beverage sector in the Egyptian market" and "environmental awareness" ($r = 0.761, p < .01$). So, the 1st null hypothesis is rejected.

There is a significant and strong positive relationship between "consumer purchasing behavior in the food and beverage sector in the Egyptian market" and "green products features" ($r = 0.726, p < .01$). So, the 2nd null hypothesis is rejected.

There is a significant and strong relationship between "consumer purchasing behavior in the food and beverage sector in the Egyptian market" and the "price of a green product" ($r = 0.764, p < .01$). So, the 3rd null hypothesis is rejected.

There is a significant and strong positive relationship between "consumer purchasing behavior in the food and beverage sector in the Egyptian market" and "promotion of green products" ($r = 0.756, p < .01$). So, the 4th null hypothesis is rejected.

Table 3: Results of hypothesis test ($p < .01$)

Hypothesis	Result
H ₀ 1: There is no relationship between environmental awareness and consumer purchasing behavior of green food and beverage products in the Egyptian market.	Rejected.
H ₀ 2: There is no relationship between green products features and consumer purchasing behavior of green food and beverage products in the Egyptian market.	Rejected.
H ₀ 3: There is no relationship between the price of green products and consumer purchasing behavior of green food and beverage products in the Egyptian market.	Rejected.
H ₀ 4: There is no relationship between green products promotion and consumer	Rejected.

purchasing behavior of green food and beverage products in the Egyptian market.	
---	--

Multiple Regression Analysis

A multiple regression analysis has been carried out by the researchers to determine the impact of environmental awareness, green products features, price of green products, and promotion of green products as independent variables on consumer purchasing behavior in the food and beverage sector in the Egyptian market as a dependent variable. The researchers obtained the following results:

Table 4: Multiple regression analysis

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	1.858	.106		17.577	.000	
X ₁	.158	.026	.247	6.129	.000	2.686
X ₂	.212	.027	.279	7.946	.000	2.026
X ₃	.179	.026	.276	6.826	.000	2.688
X ₄	.149	.026	.224	5.757	.000	2.497

Dependent Variable: Y Consumer purchasing behavior in the food and beverage sector in the Egyptian market

$$F(4, 379) = 317.6 \quad \text{Sig.} = .000$$

$$\text{Adjusted R square} = .768$$

From table (4), the researchers can formulate the regression model as follow:

$$Y = 1.858 + .158*X_1 + .212*X_2 + .179*X_3 + .149*X_4 + \varepsilon$$

Where:

Y Consumer purchasing behavior in the food and beverage sector in the Egyptian market (Dependent Variable)

X₁ Environmental awareness

X₂ Green products features

X₃ Price of green products

X₄ Promotion of green products

ε Random error

The independent variables (environmental awareness, green products' features, price of green products, promotion of green products) explain approximately 76.8 percent of the variance of

consumer buying behavior in the food and beverage sector (Adjusted R2 = .768).

Descriptive analysis according to demographic Characteristics

The researchers conducted a descriptive analysis of the research variables according to demographic characteristics, and the findings were as follow:

Table 5: Description of the research variables according to gender

Variables	Male (n=221)		Female (n=163)	
	Mean	Std. Deviation	Mean	Std. Deviation
X ₁	4.37	1.32	4.32	1.33
X ₂	5.38	1.11	5.40	1.10
X ₃	4.60	1.31	4.55	1.29
X ₄	5.05	1.27	5.00	1.26
Y	5.29	.84	5.22	.85

Table (5) shows that the responses mean of males is slightly higher than the responses mean of females concerning environmental awareness, price, promotion and consumer buying behavior in the food and beverage sector. Conversely, the mean response of females is slightly higher than males in terms of product' features. It's noted that there are no considerable differences exist between the means of males and females, which means that age is an insufficient factor to interpret consumer purchasing behavior.

Table 6: Description of the research variables according to age

Variables	up to 20 years old(n=14)		between 21 to 30 years old (n=150)		between 31 to 45 years old (n=140)		over 45 years old (n=80)	
	mean	SD	mean	SD	mean	SD	mean	SD
X ₁	4.11	1.00	4.19	1.31	4.38	1.35	4.63	1.32
X ₂	4.36	.94	5.33	1.12	5.45	1.02	5.56	1.18
X ₃	4.36	1.11	4.46	1.28	4.59	1.35	4.80	1.26

X ₄	4.02	1.13	4.96	1.22	5.05	1.29	5.28	1.25
Y	4.32	.80	5.19	.82	5.26	.85	5.56	.76

Table (6) shows to a considerable difference between the responses means of age groups as the mean tends to be higher at older ages than younger ages with respect to variables of the study. This finding indicates that older people are more aware of environmental awareness and that their behavior is more sensitive to green product features, the price of green products, and the promotion of green products.

Table 7: Description of the research variables according to marital status.

Variables	S	M	MC	WD	WDC	
n	75	39	247	16	7	
X ₁	Mean	4.33	4.25	4.39	4.15	4.00
	SD	1.29	1.41	1.33	1.30	.97
X ₂	Mean	5.34	5.38	5.42	5.19	5.43
	SD	1.10	1.13	1.12	1.10	.77
X ₃	Mean	4.44	4.53	4.65	4.45	3.86
	SD	1.33	1.30	1.28	1.37	1.37
X ₄	Mean	4.99	5.04	5.05	5.02	4.61
	SD	1.23	1.30	1.29	1.08	1.36
Y	Mean	5.26	5.26	5.30	4.75	5.04
	SD	.81	.84	.85	.90	.64

S: Single WD: Widowed / divorced
 M: Married MC: Married with children
 WDC: Widowed / Divorced with children

From table (7), the researchers concluded that the highest group in terms of mean responses is married with children, while the lowest group is Widowed / Divorced or Widowed / Divorced with children. However, the discrepancy between the number of respondents in each group and the slight difference between the groups' means does not confirm a strong connection between marital status and consumer purchasing behavior.

Table 8: Description of the research variables according to the level of education

	High school (N=68)		Bachelor's degree (n=299)		Master degree or above (n=17)	
	Mean	SD	Mean	SD	Mean	SD
X ₁	4.28	1.29	4.31	1.29	4.49	1.41
X ₂	5.22	1.09	5.40	1.09	5.48	1.16
X ₃	4.57	1.27	4.52	1.28	4.70	1.36
X ₄	4.99	1.17	4.99	1.28	5.13	1.31
Y	5.20	.84	5.25	.84	5.31	.86

Table (8) shows that the 1st order in terms of the mean of responses is master’s degree or above group, followed by bachelor's degree group, then high school group, except the variable "price" the 1st order is master’s degree or above, followed by high school then bachelor's degree; i.e. the higher the educational level, the higher the mean responses.

Table 9: Description of the research variables according to monthly family income

Variables	Less than 5000 pounds (n=281)		Between 5000 and 15000 pounds (n=59)		Between 15000 and 30000 pounds (n=29)		More than 30000 pounds (n=15)	
	Mea	SD	Mea	SD	Mea	SD	Mea	SD
	n		n		n		n	
X ₁	4.26	1.28	4.26	1.22	4.90	1.43	5.40	1.69
X ₂	5.36	1.07	5.26	1.10	5.52	1.27	6.17	1.33
X ₃	4.47	1.29	4.58	1.07	4.97	1.41	5.76	1.43
X ₄	4.94	1.23	5.00	1.26	5.48	1.26	5.93	1.51
Y	5.18	.83	5.21	.78	5.62	.85	6.11	.81

Table (9) shows that the higher the family income, the higher the mean responses. Significantly different means are found between the groups, which means that the higher the family income, the greater the awareness the consumer has, and the higher the attention they pay to green products' features.

Discussion of the findings

The findings of the current study show that there is a significant and strong positive relationship between "environmental awareness" and "consumer purchasing behavior in the food and beverage sector in the Egyptian market". These findings are in line with previous studies (Adrita & Mohiuddin, 2020; Soomro et al., 2020; Vicente-Molina et al., 2013; Jaiswal & Kant, 2018; Smith & Paladino 2010; Pagiaslis & Krontalis, 2014; Khare, 2014; Shaikh & Rahman, 2011; Rahbar & Abdul Wahid, (2011); Mostafa, 2006; Suki, 2013; Mohiuddin et al., 2018; Safari, Salehzadeh et al., 2018; Khaleeli and Jawabri, 2021). On the contrary, few studies claim otherwise (Kumar et al., 2017; Joshi and Rahman, 2015; Paradowska, 2014).

The current research results show a significant and strong positive relationship between "green products features" and "consumer purchasing behavior in the food and beverage sector in the Egyptian market". This finding is consistent with previous studies (Boztepe, 2012; Delafrooz et al., 2014; Alharthey, 2019; Adrita & Mohiuddin, 2020). Conversely, Fonseca (2015) found that, compared to conventional products, green products do not offer higher quality to customers.

The results of the current research show that there is a significant and strong relationship between "price of green products" and "consumer purchasing behavior in the food and beverage sector in the Egyptian market". This finding is in line with Anvar (2014) Boztepe (2012), Sammer and Wüstenhagen (2006), Khare et al., (2013), Rayapura (2014), Soomro et al., (2020). On the contrary, a negative connection was observed between higher prices and green purchasing behavior in various studies. Bukhari (2011). Abzari et al., (2013) Grimmer and Bingham (2013), Davari and Strutton (2014).

The results of the current research show that there is a significant and strong positive relationship between "promotion of green products" and "consumer purchasing behavior in the food and beverage sector in the Egyptian market". This finding is consistent with some previous studies. Ansar (2013), Lee (2014), Agyeman (2014), P. Govender and L. Govender (2016), Akehurst et al., (2012), Cherian & Jacob (2012).

Conclusion

The statistical analysis findings indicate that there are statistically significant relationships between environmental awareness, green product features, the price of green products, the promotion of green products, and consumer purchasing power in the food and beverage sector in the Egyptian market. The study reveals considerable environmental awareness

among Egyptian consumers who participated in the research. They support green marketing practices and sustainable development. The responses of research respondents highlight the importance of green products features, such as the ability to be recycled, having eco-friendly labelling and packaging, and having natural ingredients while making the purchasing decision. The study also reveals that the majority of respondents are willing to pay a premium price for green products. Most respondents are aware of the importance of green products promotion in increasing its consumption. However, they believe that corporations should pay more attention to the promotion of green products. They would switch to green products if there were promotional deals in the stores where they buy these products. The study results indicate that the majority of respondents selected green food and beverage products to be the most preferred to buy compared to the other green products categories. They considered the first factor that influences their decision to purchase green food and beverage products as brand. More than 80 percent of respondents agreed that they would be frequent consumers of green food and beverage products in the near future.

Recommendations

Even though the Egyptian government has considered environmental issues to be one of the crucial topics on its agenda for future policymaking, and despite government efforts to protect the environment, Egyptian consumers believe that policies and laws regarding the environment are poorly promoted and applied (Tantawi et al., 2009). Hopkins et al., (2001), in their study of the Egyptian market, stated that the government in Egypt does not help preserve the environment as viewed by a third of respondents. In support, Rice (2006) reported that the majority of the population is disenchanted with government responsibility for the environment, and that the government is part of the problem, not the solution, in that it cannot offer a solution to environmental ills.

The Egyptian government should adopt a long-term environmental plan which includes the following pillars:

Developing an environmentally-oriented educational program through incorporating sustainability philosophy into school curriculums to educate students at a young age. This environmental knowledge will eventually convert to a behavior, mindset and lifestyle;

Modifying the legislative systems by introducing economic inducements for all eco-friendly practices and discourage unsustainable behavior through applying boundaries to every practice that leads to harming the environment;

Embracing a green awareness campaign in both private and public universities as a priority in its agenda; and

Khalil (2020) found that although the 2030 vision of sustainable development has been published since 2015, there is still a lack of public awareness about it. Thus, the researchers recommend that the government improve its communication methods with Egyptian consumers

through both traditional tools of communication and also using digital platforms and social media channels.

The greatest strategic priority for Egypt should be to adopt a green philosophy since it is suffering from various environmental problems (Mourad & Serag Eldin Ahmed, 2012). It's important to understand that protecting the environment is everyone's responsibility, as everyone has a crucial role. Adopting a green philosophy is a complex goal unless governments, business organizations, and individuals work together to achieve such a goal. This will save money in the long-term and make people live healthier lives.

Gomaa (1997) emphasized how formal or organizational communication methods are rarely as efficient as non-formal ones in achieving goals in Egypt. Therefore, in order to promote pro-environmental behaviors, both governmental and nongovernmental groups should target opinion leaders, especially older and educated individuals who are influential on a local level. Religious leaders (imams) should also be targeted in order to influence people to espouse pro-environmental behaviors and spread environmental standards. Using informal communication tools at the grassroots level to highlight and communicate local success stories could inspire others to adopt pro-environmental behavior. This informal approach can be supported by mass media tools using popular TV personalities and preachers to create green awareness, and visible progress towards embracing environmental behavior at the local level among citizens.

Regarding green product pricing, green products typically seem to be more expensive than non-green products. The researchers suggest that companies embrace marketing campaigns to explain green products' beneficial functions, its role in improving consumers' lives, and highlighting its key attributes and values. Exposing the benefits of green products on the packaging may lead to more acceptance by consumers to pay a premium price and let them feel that their purchasing behavior makes a difference.

Based on the study results that considered brand as the most effective factor when buying green food and beverage products, the researchers recommend that companies need to build green brand trust through highlighting environmental and health benefits that leverage brand image, along with emphasizing the important influence of their purchasing decisions on their health and the environment. These actions may lead to a more emotional attachment to a brand.

REFERENCES

- Aboud, A., & Diab, A. (2019). The financial and market consequences of environmental, social and governance ratings. *Sustainability Accounting, Management And Policy Journal*, 10(3), 498-520. doi: 10.1108/sampj-06-2018-0167
- Abzari, M., Shad, F., Sharbiyani, A., & Morad, A. (2013). Studying the effect of green marketing mix on market share increase. *European Online Journal of Natural and Social*

Sciences, 2(3), 641-653. Retrieved April 27, 2021, from <https://european-science.com/eojnss/article/view/477/pdf>

Adrita, U. W., & Mohiuddin, M. F. (2020). Impact of opportunity and ability to translate environmental attitude into ecologically conscious consumer behavior. *Journal of Marketing Theory and Practice*, 28(2), 173-186. doi:10.1080/10696679.2020.1716629

Agyeman, C. (2014). Consumer's buying behavior towards green products: An exploratory study. *International Journal of Management Research and Business Strategy*, 3(1), 188-197. Retrieved April 28, 2021, from https://www.researchgate.net/publication/314232516_CONSUMERS'_BUYING_BEHAVIOR_TOWARDS_GREEN_PRODUCTS_AN_EXPLORATORY_STUDY

Akehurst, G., Afonso, C., & Martins Gonçalves, H. (2012). Re-examining green purchase behaviour and the green consumer profile: New evidences. *Management Decision*, 50(5), 972-988. doi:10.1108/00251741211227726

Alharthey, B. K. (2019). Impact of green marketing practices on consumer purchase intention and buying decision with demographic characteristics as moderator. *International Journal of ADVANCED AND APPLIED SCIENCES*, 6(3), 62-71. doi:10.21833/ijaas.2019.03.010

Al-Majali, M. M., & Tarabieh, S. (2020). Effect of Internal green marketing mix elements on Customers satisfaction In JORDAN: mu'tah university students. *Jordan Journal of Business Administration*, 6(2), 411-435. doi:10.35516/0338-016-002-004

Ansar, N. (2013). Impact of green marketing on consumer purchase intention. *Mediterranean Journal of Social Sciences*. doi:10.5901/mjss.2013.v4n11p650

Anvar, M., & Venter, M. (2014). Attitudes and PURCHASE behaviour of green products AMONG Generation Y consumers in South Africa. *Mediterranean Journal of Social Sciences*, 5(21), 183-194. doi:10.5901/mjss.2014.v5n21p183

Arunachalam, N. (2015). *Sustainability in business: A study on marketers' attitudes towards sustainable practices in the B2B environment* (Ph.D). University of Notre Dame Australia.

Boztepe, A. (2012). Green Marketing and Its Impact on Consumer Buying Behavior. *European Journal of Economic and Political Studies*, 5(1), 5-19. Retrieved April 27, 2021, from <http://ejeps.fatih.edu.tr/docs/articles/146.pdf>

- Brundtland, G. H. (1987). *Our common future*. Oxford: World Commission on Environment and Development, Oxford University Press.
- Bukhari, S. (2011). Green Marketing and its impact on consumer behavior. *European Journal Of Business And Management*, 3(4).
- Burritt, R. L., Christ, K. L., Rammal, H. G., & Schaltegger, S. (2018). Multinational Enterprise Strategies for addressing sustainability: The need for consolidation. *Journal of Business Ethics*, 164(2), 389-410. doi:10.1007/s10551-018-4066-0
- Chen, Y. (2009). The drivers of Green brand Equity: Green brand Image, green satisfaction, and Green Trust. *Journal of Business Ethics*, 93(2), 307-319. doi:10.1007/s10551-009-0223-9
- Cherian, J., & Jacob, J. (2012). Green Marketing: A Study of Consumers' Attitude towards Environment Friendly Products. *Asian Social Science*, 8(12). doi: 10.5539/ass.v8n12p117
- Cuculeski, N., Petrovska, I., & Cuculeski, V. (2016). Sustainable marketing and consumers' preferences in tourism. *European Journal of Tourism, Hospitality and Recreation*, 7(2), 84-90. doi:10.1515/ejthr-2016-0010
- Davari, A., & Strutton, D. (2014). Marketing mix strategies for closing the gap between green consumers' pro-environmental beliefs and behaviors. *Journal of Strategic Marketing*, 22(7), 563-586. doi:10.1080/0965254x.2014.914059
- De Medeiros, J. F., & Ribeiro, J. L. (2017). Environmentally sustainable innovation: Expected attributes in the purchase of green products. *Journal of Cleaner Production*, 142, 240-248. doi:10.1016/j.jclepro.2016.07.191
- Delafrooz, N., Taleghani, M., & Nouri, B. (2014). Effect of green marketing on consumer purchase behavior. *QScience Connect*, 2014, 5. <https://doi.org/10.5339/connect.2014.5>
- Diglel A and Yazdanifard R (2014). Green marketing: It's influence on buying behavior and attitudes of the purchasers towards eco-friendly products. *Global Journal of Management and Business Research*, 14(7): 11-18.
- El-Deep, S., & El-Sayd, A. (2017). GREEN MARKETING AS A RECENT ATTITUDE TO ACHIEVE SUSTAINABLE DEVELOPMENT. *Arab Universities Journal Of Agricultural Sciences*, 25(1), 137-145. doi: 10.21608/ajs.2017.13371
- Fonseca, J. (2015). *The impact of green marketing practices on consumer buying decision* (Master). University institute of Lisbon.

- Gomaa, S. S. (1997). *Environmental policy making in Egypt*. Gainesville, FL: University Press of Florida.
- Gordon, R., Carrigan, M., & Hastings, G. (2011). A framework for sustainable marketing. *Marketing Theory*, 11(2), 143-163. doi:10.1177/1470593111403218
- Govender, J. P., & Govender, T. L. (2016). The influence of green marketing on consumer purchase behavior. *Environmental Economics*, 7(2), 77-85. doi:10.21511/ee.07(2).2016.8
- Grimmer, M., & Bingham, T. (2013). Company environmental performance and consumer purchase intentions. *Journal of Business Research*, 66(10), 1945-1953. doi:10.1016/j.jbusres.2013.02.017
- Hopkins, N. S., Mehanna, S., & Hagggar, S. E. (2001). *People and Pollution: Cultural Constructions and Social Action in Egypt*. The American University in Cairo.
- 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. doi:10.1016/j.jretconser.2017.11.008
- Johnstone, M., & Tan, L. P. (2015). An exploration of environmentally-conscious consumers and the reasons why they do not buy green products. *Marketing Intelligence & Planning*, 33(5), 804-825. doi:10.1108/mip-09-2013-0159
- Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review*, 3(1-2), 128-143. doi:10.1016/j.ism.2015.04.001
- Kaadoor, A. M. (2020). *Determinants of green purchase intentions of Saudi consumers* (Unpublished doctoral dissertation). Portland State University.
- Katrandjiev, H. (2016). Ecological Marketing, Green Marketing, Sustainable Marketing: Synonyms or an Evolution of Ideas?. *Economic Alternatives*, 1(1).
- Khaleeli, M., & Jawabri, A. (2021). The effect of environmental awareness On consumers' attitudes And Consumers' intention to purchase environmentally FRIENDLY products: Evidence from United Arab Emirates. *Management Science Letters*, 555-560. doi:10.5267/j.msl.2020.9.011

- Khalil, S. (2020). *Sustainable consumerism in the eyes of the Egyptian generation Z* (Unpublished master's thesis). American University in Cairo. Retrieved May 2, 2021, from <https://fount.aucegypt.edu/cgi/viewcontent.cgi?article=2492&context=etds>
- Khare, A. (2014). Consumers' susceptibility to interpersonal influence as a determining factor of ecologically conscious behaviour. *Marketing Intelligence & Planning*, 32(1), 2-20. doi:10.1108/mip-04-2013-0062
- Khare, A., Mukerjee, S., & Goyal, T. (2013). Social influence and green MARKETING: An exploratory study on Indian consumers. *Journal of Customer Behaviour*, 12(4), 361-381. doi:10.1362/147539213x13875568505903
- Kumar, B., Manrai, A. K., & Manrai, L. A. (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>
- Lee, K. (2014). Predictors of sustainable consumption among young educated consumers in Hong Kong. *Journal of International Consumer Marketing*, 26(3), 217-238. doi:10.1080/08961530.2014.900249
- Mohiuddin, M., Al Mamun, A., Syed, F., Mehedi Masud, M., & Su, Z. (2018). Environmental knowledge, awareness, and business SCHOOL STUDENTS' intentions to PURCHASE green vehicles in emerging countries. *Sustainability*, 10(5), 1534. doi:10.3390/su10051534
- Moser, A. K. (2016). Consumers' purchasing decisions regarding environmentally FRIENDLY products: An empirical analysis of German consumers. *Journal of Retailing and Consumer Services*, 31, 389-397. doi:10.1016/j.jretconser.2016.05.006
- Mostafa, M. (2006). Antecedents of Egyptian Consumers' Green Purchase Intentions. *Journal Of International Consumer Marketing*, 19(2), 97-126. doi: 10.1300/j046v19n02_06
- Mourad, M., & Serag Eldin Ahmed, Y. (2012). Perception of green brand in an emerging innovative market. *European Journal of Innovation Management*, 15(4), 514-537. doi:10.1108/14601061211272402
- Nawroz, M. (2014). *Why companies should integrate sustainability as one of their decision parameters. A business perspective* (Master). Helsinki Metropolia University of Applied Sciences.
- Noo-urai, N., & Jaroenwisan, K. (2016). Sustainability Marketing: A Changing of Marketing Concept Lead to Sustainable Business. *International Journal Of Business And Social Science*, 7(4), 3. https://ijbssnet.com/journals/Vol_7_No_4_April_2016/13.pdf

- Pagiaslis, A., & Krontalis, A. K. (2014). Green consumption Behavior Antecedents: Environmental Concern, knowledge, and beliefs. *Psychology & Marketing*, 31(5), 335-348. doi:10.1002/mar.20698
- Paradowska, M. (2014). Problems involved in the development of instruments supporting the creation of sustainable behavior in transport. *The Wroclaw School of Banking Research Journal*, 1(39), 255-275.
- Peattie, K. (2001). Towards Sustainability: The Third Age of Green Marketing. *The Marketing Review*, 2(2), 129-146. doi: 10.1362/1469347012569869
- Polonsky, M. J. (1994). An introduction to green marketing. *Electronic Green Journal*, 1(2). doi:10.5070/g31210177
- Rahbar, E., & Abdul Wahid, N. (2011). Investigation of green marketing tools' effect on consumers' purchase behavior. *Business Strategy Series*, 12(2), 73-83. doi:10.1108/17515631111114877
- Rayapura, A. (2014, June 18). New Nielsen study says consumers are ready to pay more for social responsibility. Retrieved April 27, 2021, from <https://sustainablebrands.com/read/stakeholder-trends-and-insights/new-nielsen-study-says-consumers-are-ready-to-pay-more-for-social-responsibility>
- Rice, G. (2006). Pro-environmental behavior in Egypt: Is there a role for Islamic Environmental Ethics? *Journal of Business Ethics*, 65(4), 373-390. doi:10.1007/s10551-006-0010-9
- Rizwan, M., & Danish, R. (2017). Consumer's characteristics and social influence factors on green purchasing intentions. *Pakistan Journal of Life and Social Sciences*, 15(1), 24-30. Retrieved January 30, 2021, from https://www.researchgate.net/publication/318860323_Consumer's_characteristics_and_social_influence_factors_on_green_purchasing_intentions.
- Saifur Rahman, A., Barua, A., Hoque, R., & Zahir, M. (2017). Influence of Green Marketing on Consumer Behavior: A Realistic Study on Bangladesh. *Global Journal of Management and Business Research: E –Marketing*, 17(1). https://www.researchgate.net/publication/https://www.researchgate.net/publication/316989223_Influence_of_Green_Marketing_on_Consumer_Behavior_A_Realistic_Study_on_Bangladesh

- Sammer, K., & Wüstenhagen, R. (2006). The influence of eco-labelling on consumer behaviour – results of a discrete choice analysis for washing machines. *Business Strategy and the Environment*, 15(3), 185-199. doi:10.1002/bse.522
- Saunders, M., Lewis, P., & Thornhill, A. (2015). *Research Methods for Business Students eBook*. Pearson Australia Pty Ltd.
- Schena, R., Netti, G., & Russo, A. (2015). Consumers' behavior toward green products: A signalling theory approach. *International Journal of Business Administration*, 6(6). doi:10.5430/ijba.v6n6p44
- Sdrolia, E., & Zarotiadis, G. (2018). A comprehensive review for green product term: From definition to evaluation. *Journal of Economic Surveys*, 33(1), 150-178. doi:10.1111/joes.12268
- Sharma, P. (2015). Green Marketing-an Exploratory Research on Consumers in Udaipur City. *Indian Journal of Applied Research*, 5(1), 2249-555x, 254-275. Retrieved January 30, 2021, from [https://www.worldwidejournals.com/indian-journal-of-applied-research-\(IJAR\)/article/green-marketingandndash-an-exploratory-research-on-consumers-in-udaipur-city/NTUyMw==/](https://www.worldwidejournals.com/indian-journal-of-applied-research-(IJAR)/article/green-marketingandndash-an-exploratory-research-on-consumers-in-udaipur-city/NTUyMw==/).
- Siddique, M. Z., & Hossain, A. (2018). Sources of Consumers Awareness toward Green Products and Its Impact on Purchasing Decision in Bangladesh. *Journal of Sustainable Development*, 11(3), 9. doi:10.5539/jsd.v11n3p9
- Smith, S., & Paladino, A. (2010). Eating clean and Green? INVESTIGATING Consumer Motivations towards the purchase of organic food. *Australasian Marketing Journal*, 18(2), 93-104. doi:10.1016/j.ausmj.2010.01.001
- Soomro, R. B., Mirani, I. A., Sajid Ali, M., & Marvi, S. (2020). Exploring the GREEN purchasing behavior of young generation in PAKISTAN: Opportunities for green entrepreneurship. *Asia Pacific Journal of Innovation and Entrepreneurship*, 14(3), 289-302. doi:10.1108/apjie-12-2019-0093
- Suki, M. (2013). Green Awareness Effects on Consumer Purchasing Decision. *Penerbit*, 9(2), 49-62.
- Tanner, C., & Kast, S. W. (2003). Promoting sustainable consumption: Determinants of green purchases by Swiss consumers. *Psychology & Marketing*, 20(10), 883-902. doi:10.1002/mar.10101

- Tantawi, P., O'Shaughnessy, N., Gad, K., & Ragheb, M. (2009). Green Consciousness of Consumers in a Developing Country: A Study of Egyptian Consumers. *Contemporary Management Research*, 5(1). doi: 10.7903/cm.1149
- Van de Voorde, F. (2017). *The Effects of Sustainable Practices on Customer-Based Brand Equity* (Unpublished master's thesis). Kyamk, university of applied science. doi:https://www.theseus.fi/bitstream/handle/10024/125160/vandeVoorde_Franciscus_1401675_Thesis.pdf?sequence=1
- Vermeir, I., & Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behavior and the role of confidence and values. *Ecological Economics*, 64(3), 542-553. doi:10.1016/j.ecolecon.2007.03.007
- Vicente-Molina, M. A., Fernández-Sáinz, A., & Izagirre-Olaizola, J. (2013). Environmental knowledge and other variables affecting pro-environmental behaviour: Comparison of university students from emerging and advanced countries. *Journal of Cleaner Production*, 61, 130-138. doi:10.1016/j.jclepro.2013.05.015