



**NEAR EAST UNIVERSITY  
INSTITUTE OF GRADUATE STUDIES  
DEPARTMENT OF INTERNATIONAL BUSINESS**

**THE RELATIONSHIP BETWEEN GREENWASH, MEDIATING  
ROLE OF GREENSKEPTICISM AND GREEN PURCHASE  
BEHAVIOUR IN NORTHERN CYPRUS**

**M.Sc. THESIS**

**Isra Mustafa Mohamed ELAMIN**

**Nicosia  
June, 2022**

**Isra Mustafa Mohamed  
ELAMIN**

**THE RELATIONSHIP BETWEEN GREENWASH,  
MEDIATING ROLE OF GREENSKEPTICISM  
AND GREEN PURCHASE BEHAVIOUR IN  
NORTHERN CYPRUS**

**MASTER THESIS**

**2022**

**NEAR EAST UNIVERSITY  
INSTITUTE OF GRADUATE STUDIES  
DEPARTMENT OF INTERNATIONAL BUSINESS**

**THE RELATIONSHIP BETWEEN GREENWASH, MEDIATING  
ROLE OF GREENSKEPTICISM AND GREEN PURCHASE  
BEHAVIOUR IN NORTHERN CYPRUS**

**M.Sc. THESIS**

**Isra Mustafa Mohamed ELAMIN**

**Supervisor**

**Assist. Prof. Dr. Ayşe Güzde KOYUNCU**

**Nicosia**

**June, 2022**

## **Declaration**




I hereby declare that all information, documents, analysis and results in this thesis have been collected and presented according to the academic rules and ethical guidelines of Institute of Graduate Studies, Near East University. I also declare that as required by these rules and conduct, I have fully cited and referenced information and data that are not original to this study.

Isra Mustafa Mohamed Elamin

13./June/2022

## APPROVAL

We certify that we have read the thesis submitted by Isra Mustafa Mohamed Elamin 20204703 titled “The Relationship between Greenwash, mediating role of Green Skepticism and Green Purchase Behaviour in Northern Cyprus” (in hold) to the Faculty of Economic and Administrative Sciences, Department of International Business and approved in partial fulfillment of the requirements for the degree of Master of Arts in International Business at Near East University.

	Name / Surname	Signature
<b>Chair</b>	Dr. Laith Tashtoush	
<b>Member</b>	Dr. Tijen Zeybek	
<b>Member (Advisor)</b>	Assist. Prof. Dr. Ayse Gozde Koyuncu	

Approved by the Head of the Department

6./7./2022



Assist. Prof. Dr. Ayse Gozde Koyuncu

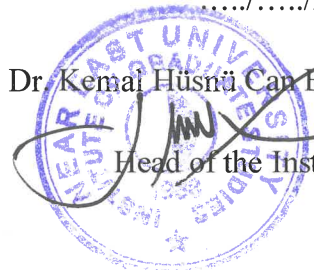
Head of Department

Approved by the Institute of Graduate Studies

...../...../20...

Prof. Dr. Kemal Hüsnü Can Başer

Head of the Institute



## **Acknowledgments**

I would like to express my special thanks to my supervisor Assist. Prof. Dr. Ayşe Gözde Koyuncu for her continuous support and guidance throughout my research study.

I would also like to extend my thanks to Jury members for their guidance and to all my professors during my study at the university in Economics and Administrative Sciences Faculty.

Lastly, I'm sincerely grateful for the unconditional support of my parents, my brothers, my sisters and my friends, my deepest gratitude for each one of you. Thank you immensely.

**Isra Mustafa Mohamed Elamin**

## **Abstract**

### **THE RELATIONSHIP BETWEEN GREENWASH, MEDIATING ROLE OF GREENSKEPTICISM AND GREEN PURCHASE BEHAVIOUR IN NORTHERN CYPRUS**

**Elamin, Isra Mustafa Mohamed**

**MA, Department of International Business**

**June, 2022, 84 pages**

The pursuit of eco-friendly products by businesses in recent years has been an important transformation in customer purchasing behaviour worldwide. This exploration study was directed to navigate the association of Greenwash and Green Purchase Behaviour with green skepticism as a mediator. They were collected online from 202 University students in North Cyprus. To analyse the data, the reliability report, correlation assessment, regression and mediation analysis process (Hayes,

2009) were used. The results showed that there was acceptable Cronbach's Alpha of 0.935, positive effect of Greenwash on Green Purchase Behaviour, while Green Skepticism effects positively on Green Purchase Behaviour and on Greenwash with partial mediation effect on GW and GPB. To conclude, study results showed there was high percentage in demographic data of 87.63% participants were under the age of 33 years old, 60.4% were male and 68.81% were undergraduate students.

This research study will help businesses in North Cyprus to improve their marketing strategies in order to promote their green products and programs. Future researches can make use of the theoretical framework with additional different factors and methodologies, and explore consumers' behaviour complexity to lessen the research gap.

***Keywords:*** Greenwash, Green Skepticism, Green Purchase Behaviour

## Özet

# KUZEY KIBRIS'TA GREENWASH, YEŞİL ŞÜPHELİĞİNİN ARACILIK ROLÜ VE YEŞİL SATIN ALMA DAVRANIŞI ARASINDAKİ İLİŞKİ

Elamin, Isra Mustafa Mohamed

Yüksek Lisans, Uluslararası İşletme Bölümü

Haziran, 2022, 84 Sayfa

İşletmelerin son yıllarda çevre dostu ürünler arayışı, dünya çapında müşteri satın alma davranışında önemli bir dönüşüm olmuştur. Bu keşif çalışması, Yeşil Yıkama ve Yeşil Satın Alma Davranışının bir arabulucu olarak yeşil şüphecilikle ilişkisini yönlendirmeye yöneliktir. Kuzey Kıbrıs'ta 202 Üniversite öğrencisi ile internet üzerinden görüşerek toplanmıştır. Verilerin analizinde güvenilirlik raporu, korelasyon değerlendirmesi, regresyon ve aracılık analizi süreci (Hayes, 2009) kullanılmıştır. Sonuçlar, kabul edilebilir Cronbach Alfa'sının 0,935 olduğunu, Yeşil Yıkama'nın Yeşil Satın Alma Davranışı üzerinde olumlu etkisi olduğunu, Yeşil Şüpheciliğin ise Yeşil Satın Alma Davranışı üzerinde olumlu bir etki yaptığını ve Yeşil Yıkama üzerinde YY ve YSAD üzerinde kısmi aracılık etkisi olduğunu göstermiştir. Sonuç olarak, çalışma sonuçları, demografik verilerde yüksek bir yüzde olduğunu gösterdi; katılımcıların %87,63'ü 33 yaşın altında, %60,4'ü erkek ve %68,81'i lisans öğrencisiydi.

Bu araştırma çalışması, Kuzey Kıbrıs'taki işletmelerin yeşil ürün ve programlarını tanıtmak için pazarlama stratejilerini geliştirmelerine yardımcı olacaktır. Gelecekteki araştırmalar, teorik çerçeveyi ek farklı faktörler ve metodolojilerle kullanabilir ve araştırma boşluğunu azaltmak için tüketicilerin davranış karmaşıklığını keşfedebilir.

**Anahtar Kelimeler:** Yeşil Yıkama, Yeşil Şüphecilik, Yeşil Satın Alma Davranışı

## Table of Contents

Declaration .....	2
Approval .....	3
Acknowledgements .....	4
Abstract .....	5
Özet.....	6
Table of Contents .....	7
List of Tables.....	10
List of Figures.....	11
List of Abbreviations.....	12

### CHAPTER I

Introduction.....	13
Background of the Study.....	13
Statement of the Problem .....	15
Purpose of the Study .....	16
Hypotheses .....	16
Significance of the Study .....	16
Importance of the research.....	16
Limitations .....	17
Definition of Terms .....	17

### CHAPTER II

Literature Review .....	19
Green Purchase Behaviour.....	19
Green Skepticism.....	20
Greenwash.....	21
Green Purchase Behaviour and Greenwash .....	22
Green Purchase Behaviour and Green Skepticism.....	23
Green Skepticism and Greenwash.....	24
The Mediation Impact of Green Skepticism.....	25
Theoretical Framework.....	25



Related Research .....	26
Ghana.....	26
Hungary .....	27
China .....	27
Vietnam .....	28
Turkey .....	28
Malaysia.....	29

### CHAPTER III

Methodology.....	30
Design and Model of the Research.....	30
Measurement of the Constructs .....	30
Sampling and Data Collection .....	30
Tools (quantitative) .....	31
Data Analysis Procedure.....	34
Ethical Consideration .....	34
Data Analysis .....	34
Data Reliability & Validity / Trustworthiness.....	34

### CHAPTER IV

Findings and Discussion .....	36
Data Findings .....	36
Hypothesis 1, 2, and 3.....	36
Correlation Relationship between variables.....	36
Hypothesis 4 and Research Model.....	37
Regression Analysis .....	37
Mediation matrix Model 4.....	37
The effect of GW on GS.....	38
Direct and Indirect effect GPB, GW & GS .....	39
Total Effect between GPB & GW.....	39
Discussion of Findings.....	40
Hypothesis 1, 2, and 3.....	40
Correlation Relationship between variables.....	40

Hypothesis 4 and Research Model.....	41
Regression Analysis .....	41
Total, Direct, & Indirect effect of Study Model.....	42
CHAPTER V	
DISCUSSION.....	44
CHAPTER VI	
Results and Recommendations .....	46
Summary of the Results .....	46
Conclusion .....	47
Recommendations .....	47
REFERENCES .....	49
APPENDICES .....	59

## List of Tables

	<b>Page</b>
<b>Table 3.1:</b> Age & Gender Cross-tabulation & Percentage .....	30
<b>Table 3.2</b> Gender & Degree Level Cross-tabulation & Percentage.....	32
<b>Table 3.3</b> Cronbach's Alpha for all items.....	33
<b>Table 3.4</b> Cronbach's Alpha for GW questions.....	35
<b>Table 3.5</b> Cronbach's Alpha for GS questions.....	35
<b>Table 3.6</b> Cronbach's Alpha for GPB questions.....	35
<b>Table 4.1</b> Correlation relationship between variables.....	36
<b>Table 4.2</b> ANOVA.....	37
<b>Table 4.3</b> Regression Analysis Model Summary.....	41
<b>Table 4.4</b> Coefficients.....	41

## List of Figures

	<b>Page</b>
<b>Figure 2.1:</b> The Conceptual Framework of the Study.....	25
<b>Figure 3.1</b> Bar Chart Age & Gender Cross tabulation.....	32
<b>Figure 3.2</b> Bar Chart Gender & Degree Level Cross tabulation.....	33
<b>Figure 4.1</b> Model 4 for Mediation Analysis.....	38
<b>Figure 4.2</b> The Effect of GW on GS.....	38
<b>Figure 4.3</b> Direct and Indirect effect GPB, GW & GS.....	39
<b>Figure 4.4</b> Total effect between GPB & GW.....	40
<b>Figure 4.5</b> Total & Indirect effect of GW on GPB.....	43

### **List of Abbreviations**

<b>TRNC:</b>	Turkish Republic of North Cyprus
<b>MNE:</b>	Ministry of National Education
<b>GW:</b>	Greenwash
<b>GS:</b>	Green Skepticism
<b>GPB:</b>	Green Purchase Behaviour
<b>CSR:</b>	Corporate Social Responsibilities
<b>SPSS:</b>	Statistical Package for Social Sciences
<b>LLCI:</b>	Lower Limit Confidence Interval
<b>ULCI:</b>	Upper Limit Confidence Interval
<b>t:</b>	Test of Statistical Significance
<b>NEU:</b>	Near East University
<b>EMU:</b>	Eastern Mediterranean University
<b>CIU:</b>	Cyprus International University
<b>ANOVA:</b>	Analysis of Variance

## **CHAPTER I**

### **Introduction**

#### **Background of the Study**

Today, globally recognized corporations seek ways and instruments that allow them to effectively communicate information about their actions in relation to environmental and sustainable development challenges. Tools of marketing such as eco-brand, eco-label, etc. appear to be effective in this industry. That is how green marketing came into being, with all of its benefits and cons. Greenwashing is one of them. Companies are constantly looking for new approaches to attract customers through the product niche in the green age. Green marketing is considered the new approach for reaching out to customers. The green age trend becomes an advantage to firms in offering green products and services and opening doors for environmental sustainability (Chang, 2011).

Over the last few years, the form of natural security and green endorsement have acquired fluctuations in customer interest and behaviour. Customers are keener on eco-friendly regimes since they are ecologically dependable as well as anticipate individual advantages from green goods and services (Marchand & Walker, 2008). Green enterprises are accessible in various areas such as green energy, nutrition, holiday business, packing, style, architecture, government, and green constructions (Leonidou & Skarmeas, 2015). Gigantic and quick industries of goods and/or services around the world take lately grown crucial apprehension as this is causing the drop in natural assets and to the environment carrying substantial harm (Barretta, 2016; Chen & Chai, 2010).

The case in developed countries has caught community distress and become an eye-opening to the developing countries (Chen & Chai, 2010). Currently, the prediction of goods and services is to be upright for the business's revenue and for the general public and the earth. Consumer demand for goods and services has expanded dramatically over the world in the previous decade, resulting in natural resource depletion and serious environmental harm.

Chen & Chai (2010) Global warming, increased pollution, and a reduction in wildlife and plant life are just a few of the major costs of environmental destruction. Various countries throughout the world are becoming aware of the problem and have begun striving to mitigate it. Changes in the environment have

successfully repositioned the thinking approach of societies about their life (Cherian & Jacob, 2012).

Veleva and Ellenbecker (2001) Awareness and interest in the society and its environment has become the eye-opening to the rise of sustainability. The need to promote sustainability is stressed by evolution that supports this kind of sustainability. Evolution reduces adverse effects on both society and the environment. Steady evolution promotes eco-friendly and eco-innovation consumption. Eco-innovation includes environmental sustainability practices at every stage of creating a product or service. Though, green consumption is usually associated with green consumption where consumers reflect the influence on the environment by purchase, use, disposal of different products, or use of different green services (Moisander, 2007). Environmentally friendly acquisitions are substantial, as unplanned acquisitions of merchandise may cause serious destruction to the atmosphere.

Grunert (1995) expressed that family acquisition of customers were engaged with 40% of natural obliteration. Arvola et al., (2008) clients can forestall or decrease the natural damage brought about by green item buying choices (Ellen et al., 2006). As indicated by the former study, (Liu et al., 2012) there is a positive purchaser demeanour towards safeguarding the climate (Vermeir & Verbeke, 2006). Truly, (Bockman et al., 2009) customers have communicated their interest for organizations in the past green items (Schmeltz, 2012). Subsequently, customers distinguish themselves with organizations that are green consistent and they will put their cash in a greener way of life. Accordingly, green marketing is considered an environmental protection tool and strategy for marketing (Yazdanifard & Mercy 2011).

Bray et al. (2011) the number of in recent years, more and more people are willing to buy environmentally friendly products, with little evidence of this. It suggests that there is an increase in the purchase of eco-friendly products. Regardless of environmental concerns and positives about sustainability and customer attitude toward green products, green product market shares remains limited to only 13 percent of the total market. This shows that natural thought assumes an optional part in buying choices for customers and the overall public ignores the ecological effect of purchases (Mohr et al., 2001).

Individuals have become more conscious and aware in regards to their choices and their lifestyle. Customers are vital determinants when things derive

from ecological production as they are perceived to select products differently in reference to their thoughts on the effect of their use on ecology and the environment (Bonini & Oppenheim, 2008). These variations in consumers' likings lead to new-product desire which is an indication of green products or sustainable ones (Yadav & Pathak, 2016).

The referenced items are supposed to be sounded as more appealing because of the customer's worry about the renovation of environmental steadiness (Cherian & Jacob, 2012). Nevertheless, the number of businesses attuned to the way their green business approaches expending that greenwashing is only about showing off and not performing in actual terms (Guo et. al. 2017). This number of businesses showed puzzling eco-friendly allege and deceived customers about their eco-friendly performance. The extensive blow-out practices of greenwashing can be considered by numerous key motives.

Therefore, the mandate for eco-friendly products is anticipated to be in the market continue but customers still apprehend to fill the gap between the promoted and the reality. Customers might still continue to distrust the green products' titles. Studies show a growing number of consumer skepticism towards businesses that grasp devious chances into environmental activities. These businesses sometimes practice greenwashing in order to endorse an eco-friendly behaviour avoiding exposing negative facts to be able to expand in the green market (Lyon et al., 2015).

In the interim, consumer perceptions of greenwashing occur and their effect on brand approaches and purchasing behaviour is substantial in building decisions in regards to green purchasing. (Leire and Thidell, 2005).

### **Statement of the Problem**

The relationship between Greenwash, mediating role of Green Skepticism and Green Purchase Behaviour in North Cyprus.

North Cyprus is known for its sustainable background and green products. Sustainability is shown in its buildings or the way Turkish Cypriots live their lives between the greenery areas, cultural villages, and making traditional foods. Despite its old buildings, these buildings can be of good use for more years to come in addition to some changes according to certain needs in communities (Vehbe et al., 2021).

Turkish Cypriots are known for their traditional food, nowadays known as green, and healthy products by old-fashioned tools whereas the olive oil mill,



Halloumi - traditional cheese - and homemade jams and soups made at home (Oktay et al., 2003).

In reference to North Cyprus's background in sustainability and eco-friendly products, this research study aims to investigate the familiarity of marketing and business terms of sustainability and green products on educated participants studying in Northern Cyprus.

### **Purpose of the Study**

This research aims to ascertain the relationship between greenwash, the mediation impact of green skepticism, and green purchase behaviour as consumers' feedback and knowledge regarding each term and to establish an understanding of their familiarity and awareness of green marketing strategies. It also targets to examine the impact of green skepticism and greenwash on their perception of green product purchase behaviour.

### **Hypothesis**

H1. Green skepticism negatively affects Green Purchase Behaviour.

H2. Greenwash negatively affects Green Purchase Behaviour.

H3. Greenwash positively affects Green Skepticism.

H4. Green Skepticism has a mediation effect on the relationship between Greenwash and Green Purchase Behaviour.

### **Significance of the study**

The research is conducted to mainly focus on the influence of greenwash, the green skepticism mediation effect, and the role and green purchase behaviour as an online study on university students in North Cyprus.

### **Importance of the research**

Green marketing examines protecting the climate's natural resources. The ongoing approach of marketing made a great deal of troubles recently. Marketing development exercises brought about large scale manufacturing with the consumption of trend setting innovation, fast monetary development, agreeable and lavish life, high contest, consumption of undesirable marketing strategies and methods to draw in customers caused and created a ton of issues and hindrances.

Additionally, stores and shopping centres are overflowed with beneficial and unusable items.

These factors have uncovered the prosperity of people and green balance as well. Furthermore, huge manufacturing organizations become the source of various defilements and pollution. Economic development through consumption and production looms over the tranquil existence of humanoids on the earth.

### **Limitations**

As affirmation, every study has limitations, therefore, this research study examines the influence of green skepticism and greenwash in green purchase behaviour which that raised limitations firstly in the research method that is applied (quantitative and deductive method) as for its insufficiency in comparison to mixed methods, were conducting interviews with green corporations and having their insights on the how this study can be seen in day-to-day activities.

Secondly, the sample population size shortage for statistical measurement due to the outbreak of pandemic Covid-19 and the online participation that minimizes effective communication. Thirdly, this study represents the sample of students studying in North Cyprus universities, however, upcoming exploration can choose to study a larger population which characterises a more specific profile to get a better and clearer process and results.

Finally, green terminologies are still not used or known by individuals, so there faced difficulty filling out the questionnaire. Future research could add other attributes to the theoretical framework such as environmental knowledge to provide validity to the study findings.

### **Definitions of Terms**

**Green Purchase Behaviour:** the term is defined as the willingness and intention to buy eco-friendly products and services which are usually beneficial to the environment (Joshi & Rahman, 2015).

**Greenwash:** the term is describing green marketing, advertising, label packaging, and other promotional and sales activities for products and services using misleading and deceptive environmental claims to be able to attract consumers and convince them to purchase (Orange & Cohen, 2010).

Green Skepticism: the term is defined as the consumers' tendency to react doubtfully to product and service green environmental claims or benefits (Mohr et al., 1998).

## CHAPTER II

### Literature Review

Exploration allied theoretical descriptions, explanations of the study terms and data interrelated to the research study according to the prior significant literature are presented in this chapter.

#### **Green Purchase Behaviour**

Bui & Loyola (2005) During the 1970s, a great deal of examination and studies has been aimed at customer demeanour toward eco-friendly items. Various variables including values, data, necessities, points of view, and socioeconomics were shown to normally drive customer's choice to purchase eco-friendly items. Then again, there have been not very many explores and studies coordinated at green purchase behaviour (Tanner & Kast, 2003).

Understanding consumers' and businesses' attitudes is a beneficial predictor of environmentally responsible behaviour. Starting from the beginning of Earth Day, public worry about environmental issues has reliably extended over the last thirty years. The Athens Laboratory of Research in Marketing as a team with the Centre of Sustainability inspected shoppers supportive of ecological ways of behaving, by directing a study about green marketing. The exploration results showed that more than 92 % of customers incline toward business associations with ecological supportable practices. (Papadopoulos et al., 2010)

Eco-friendly products deter harm to society and environment. Customer intents, and inclination to purchase eco-friendly products is commonly assessed in relations to customer's green purchase behaviour and the intent generally is converted to green purchase behaviour that in conclusion has an effect on customer behaviour intended for purchasing such eco-friendly products (Joshi & Rahman, 2015).

Ayoun et al. (2015) green purchase intention is recognised as the customer's primary step in a possible green product acquisition. It is assumed that green purchase behaviour is a way of interest that needs motivation (Maichum et al., 2017).

Moisander (2007) Inclining toward marketing strategies investigating the potential chance to showcase harmless to the ecosystem products at premium costs,

that is the reason green customers were characterized as the people who will first generally stay away from products and businesses with huge no positive externalities. Nevertheless, green marketing should not be subject to standardizing cases of green materialism to be reasonable itself. Customers can be accepted by their actions (Zarei & Maleki, 2018).

### **Green Skepticism**

Rosen (2004). Previous research observed the impact of skepticism in numerous disciplines i.e. philosophy, politics, psychology, and sociology. On account of vicious rivalry nowadays, organizations should exhibit increasingly more that their products are of the greatest quality. Sadly, some businesses marketing guidelines permit some organizations to misrepresent their product's qualities. Skepticism is defined as the general propensity of disposition of an individual to suspicion or disbelief of others while free-market play a main role (Obermiller & Spangenberg,

1998) in increasing customer's level of skepticism. Kim & Lee (2009) Skepticism has been studied in business management, with regards to publicizing regular items, corporate social responsibilities (CSR), cause-related advertising, and environmental privileges.

The level of customer information regarding the subject might prompt their skepticism towards promoting claims. Skepticism is definitely not a sort of a state of mind, and it shows up just under particular conditions. Skepticism engage questions about what others say or do. However, the person can be persuaded when evidences are shown. Skepticism is a mental response that shifts as per the event and content of the correspondence (Mohr et al., 1998). Pomeroy and Johnson (2009) the present-day research focus on embracing the later insight and states green doubt for example the bent suspicion the natural cases and ecological execution of eco-friendly items. Researchers don't ponder skepticism as a steady or proceeding with mistrust of customers towards the green items. That is since incredulous customers' reactions toward green items might contrast restrictive on the context and circumstances.

Green customers are the individuals who consider the effect of their utilization on the climate and are able to make changes in their way of behaving. GPB is significant on the grounds that spontaneous utilization may altogether

influence the climate. Quite possibly of the most significant parts of guaranteeing an “biological future” is decreasing the utilization and assembling of products that are known are bad for the climate (Moisander, 2007).

However, the rational variables connected with person way toward the climate are broadly contemplated. Thus, the range of choices is adequately wide to make sense of how people view the World. A portion of these states are brief, while others will keep going quite a while. The impacts of these states on people and the climate are of essential interest in light of the fact that there are included. In the decay or rebuilding of the environment has an enduring effect on the approaching ages. This raises the e issue of “intergenerational equity,” which is frequently finished thoroughly searched in marketing and other business-related fields.

Since a critical part of customer exchanges cause natural mischief (Grunert, 1995), with a hindering influence on the following ages, purchasers’ GPB in such cases might play out a significant job in keeping away from or lessening environmental harm. In spite of customers’ hopeful perspectives toward a greener climate (Arvola et al., 2008) and longing for green merchandise (Bockman et al., 2009), research that recommends an expansion in the acquisition of earth agreeable items is limited.

Albayrak et al. (2011) Organizations attempt to increase more to show quality products that fulfil ecological standards to stand out for green customers. Accordingly, the unrestricted economy framework expands individuals' skepticism. Skepticism ordinarily happens when customers feel that there is an irregularity between sellers' attestations and execution. Likewise, irregularity among promotion and advertising claims and a business moves' can prompt customers' skepticism and distrust (Rahman et al., 2015).

## **Greenwash**

Greenwashing is the practise of passing on a bogus impression or giving misdirecting information about how business's products are all eco-friendly products. Greenwash is deliberated as unverified statement to mislead customers in trusting the business's produces eco-friendly products.

The term initiated in the 1960s at the point when the lodging business conceived quite possibly the most outright instances of greenwashing. They set notification in lodgings requesting that visitors reuse their towels to save the environment. The lodgings enjoyed the advantage of lower clothing costs. The

development of this term reflected the rising worry with which some businesses innovatively accomplish their reputations before the community, financial municipal and regulating agencies, complicating the nature of their problem or privilege (Laufer, 2003).

Because of the creating necessities for green purchasers, greenwash become the normal practice to raise organizations' share in the market (Chen and Chang, 2013). Purchasers give off an impression of being aware about businesses' greenwash performance, and in what way organizations oppose consumers in regards to green products. Firms making a use of eco-friendly practices to show effectiveness and increment the share of the overall industry, benefits, and better picture about themselves to buyers, yet that isn't accurate. They are using practices to deceive purchasers that they are involving the real techniques for green advancement and green creation, yet, they are not rehearsing any of these.

Greenwashing alludes to deliberately deceptive or misleading customers with bogus cases about a company's green practices and effect. Some businesses choose to intentionally practice greenwashing to match the increasing demands of green products. This rising pattern happening to market for businesses become a worry. For businesses to catch market interest, they are forming procedures headed for an ecofriendly approach in all fields. Greenwash is at the same time supporting businesses to match such market trends (Delmas, 2013).

### ***Green Skepticism and Green Purchase Behaviour***

Most of the studies and research have considered it a customer interest encouraged by circumstantial influences free of quality attributes (Vanhamme & Grobben, 2009; Patel et al., 2016). To beat purchaser doubt of green advertising practices and claims, further examination is expected on procedures ability besides, huge open doors presently exist to investigate the effects on green purchase behaviour of buyers' expanding ecological ability and their certainty that their choices will make green impacts (Cronin et al., 2011). Skepticism can change the positive connection between green purchase expectation and green purchase behaviour. Particularly, this relationship might show negative effect when purchasers have an elevated degree of green skepticism.

An evaluation of the literature suggests that a limited understanding is laid out on the idea of skepticism. Though a few investigations and researchers looked at skepticism is character quality (Leonidou & Skarmeas, 2015). These researches

banter that while skeptical consumers might contrast according to their uncertainty or doubt towards others, they can modify their viewpoint when given satisfactory affirmation (Foreh and Grier, 2003). In spite of, (Raska and Shaw, 2012) there has been an extending hypothetical and laid out media (Nyilasy et al., 2014) thought and concern is given (Matthes and Wonneberger, 2014) to green skepticism and doubt recently, a restricted observational proof for its part in green purchase behaviour.

Analysed premise, and uniqueness in regards to consumer skepticism toward promoting products overall. Obermiller and Spangenberg (1998) this overall promoting skepticism classified as the doubt of showcasing statements as a start dropping by phase, and it seemed mostly grounded among feminine adolescents. Additionally, customers showed more raised degrees of distrust toward promotions than various kinds of item data, for example, client reports, friends, and authoritative reports. Skeptical customers were seen to have a negative response to promotions and were less persuaded by sustainable items.

Albayrak et al. (2011) believe that assuming associations want to restrict the unfavourable results of distrust on the green buy conduct of clients, and make progress in the green items market, they should exhibit their natural cases. Notwithstanding regular assets and energy concerns having extended, a couple of clients are at this point reluctant to purchase green items. The ascription speculation was used (Leonidou & Skarmeas, 2015) to focus on establishments, and aftereffects about eco-friendly distrust. Doubt can change the positive association between green buy assumption and green buy conduct. Especially, this relationship could show an adverse consequence when buyers have a raised level of green wariness. Investigators found that confirmation of the natural and outside motivations towards green standards, guidelines of corporate social obligations (CSR), and green past. Likewise, green distrust was found to antagonistically influence future buy conduct, and based on that, the hypothesis is enunciated as follows:

H1. Green skepticism negatively affects Green Purchase Behaviour.

### ***Green Purchase Behaviour and Greenwash***

As most firms in the catering business are highly infecting, however, they are hiding it through eco-friendly advertisement campaigns. Customers have concern about greenwashing to distinguish between real and ambiguous claims. They perceive green products as high risk. Doubting the green claims by business



is the negative result of it. In contrast, vendors market their green products, but with no further explanation of how products effectively contribute to the environment which leads to consumer skepticism. (Yiridoe et. al, 2005)

Green purchasing behaviour examines the likelihood that a customer will buy a specific products or service weighty from their eco-friendly understandings, and connotes how much customers will purchase products or services from organizations that have demonstrated as being eco-friendly (Newton et. al, 2015). Certainly, customer may get incredulous about an organization when they figure out that it isn't keen to what it claims and skeptical customers may change their reactions towards the businesses 'products when knowing there is adequate verification of greenwashing (Goh & Balaji, 2016).

Greenwash procedures harm organizations' notorieties, and subsequently organizations, shouldn't embrace these methods. Assuming firms use greenwash, exercises to mislead customers, at last, they won't buy their products, since that might expand their negative view with respect to the organization and its products. If organizations work on greenwashing to deceive their customers, their customers may not be prepared to trust them, and at last, this diminishes their buying intentions (Leonidou and Skarmeas, 2015). Moreover, (Maichum et al., 2017) customers might be tangled by one-sided green data, which confuses their choices to buy the real ecofriendly product, and in the end prompts more cautious buying ways of behaving in upcoming events to cease from capitulating greenwash. As an example of, Volkswagen's common known emanations embarrassment in regards to their "Perfect Diesel" crusade gave the organization a terrible standing with a client reaction in various huge business sectors. Hence, the hypothesis is as follows:

H2. Greenwash negatively affects Green Purchase Behaviour.

### ***Green Skepticism and Greenwash***

Recently, the occurrences of greenwashing have boomed enormously alongside the rapid market growth of eco-friendly products that let businesses to overcorrespond in regards to their environmental performance (Delmas, 2013). While environmental protection procedures are being set to place; environmental protocols are not being well practiced. Customers' skepticism towards brands that exploit green patterns is rising.

As a result of certain brands' greenwashing conduct, an incredible doubt of both green products and the entire business has been accounted for by customers.

For example, the report by GFK (2013) uncovers that 39% of customers are skeptical of environmental claims presented by certain businesses. Eurobarometer (2009) at an alternative assessment 48 percent of participants demonstrate doubt in regards to ecofriendly prerogatives in companies' green goods. Focussing on the effect of a brand's greenwashing ways of behaving on its image picture and its customer conduct, existing examinations have shown that greenwashing ways of behaving lead to customers doubt and low purchase behaviour and intention (Guo et al., 2017; Nyilasy et al., 2014).

Green skepticism is considered a recent subject to customers, businesses, and investors. Usually, skepticism is an indication of a person's inclination to caution, question and doubt (Foreh and Grier, 2003). Also, it shares the concepts such as sarcasm, disbelief, and wariness. Customers' realization of the existence of greenwashing hints in regards to the skepticism reaction about businesses' ecofriendly enterprises (Chen & Chang, 2013). Therefore, the following is hypothesized:

H3. Greenwash positively effects on Green Skepticism.

### ***The Mediation Impact of Green Skepticism***

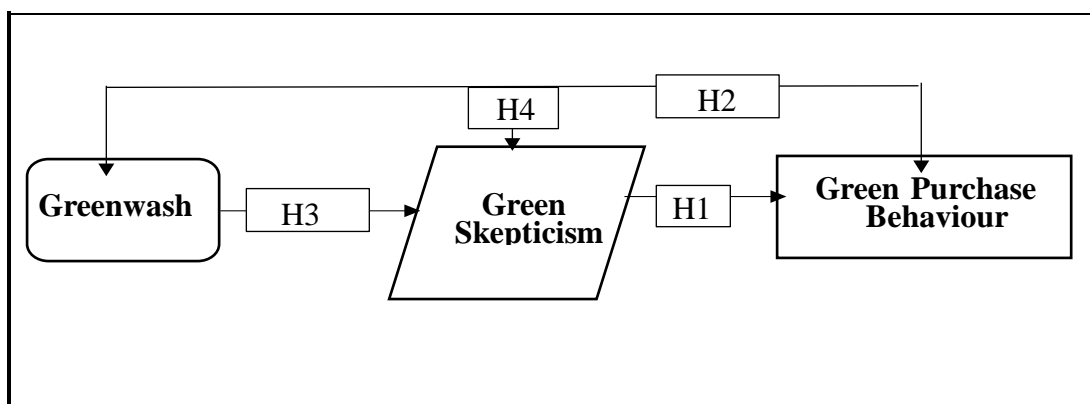
Previous researches reveal that skepticism is the outcome of greenwashing about green assertions (Chen & Chang, 2013). When customers show skeptical reactions about an entity or business that profits scheming achievement because of eco-friendly movements, they form adverse approaches to the brand and avoid purchasing any of the business's products (Leonidou & Skarmas, 2015; Pomeroy & Johnson, 2009). As a result, data sources and the validity of verification are viewed as basic factors in skepticism (Zarei and Maleki, 2018). Customers might doubt the organizations once sighted irregularity about organization broadcasts, and the actual performances in which they become hesitant about green product purchase (Nguyen et al., 2019). Therefore, hypothesis was formed:

H4. Green Skepticism has a mediation effect on the relationship between Greenwash and Green Purchase Behaviour.

### **Theoretical Framework**

The study theoretical framework presented in Figure 1 was altered in the basis of literature review and the thesis that examine the relationship between greenwash, mediating role of green skepticism, and green purchase behaviour.

Figure 2.1

*The Conceptual Framework of the Study***Related Research*****Ghana***

The capricious usage plans in general have procured its wake difficult issues like tainting and a broad temperature lift, and this has finally called for green item mindfulness and use. The essential justification for the research was to evaluate the influence understudies' cognizance about eco-friendly goods on green purchase intentions. An explicit goals were set to perceive either mindfulness, esteem, openness, worth, and quality effect undergrads' intend purchasing green goods, and inspecting in what way mindfulness, esteem, worth, and quality foresee understudies 'goals purchasing green goods.

Essential condition exhibiting was utilized to separate data assembled through survey of 478 undergrads online. Green obvious quality was resulted as a best measure of enormous beneficial outcome on undergrads' green buy expectations; yet, green clear openness smallest impacted understudies' goal purchasing goods of green label. This analysis is the main reason which green product effect not entirely settled by cost, high worth, and wonderful quality. In any case, openness is certainly not a fundamental affecting component concerning the green buy expectations of undergrads. The repercussions of the review, impediments, suggestions, and further investigation are analysed (Ansu-Menash, 2021).

### ***Hungary***

Consumers nowadays are becoming more aware of their consumption criteria and how this might reflect on social and environmental development. Awareness rises due to exposure to the topics and information through social networks and media in which that provide them with benefits and quality of products.

On the other hand, marketing strategies have also taken this change forward by focusing in the environment and social responsibilities. While the trend of environmental protection created a niche in the global market which attracted customers who care about environment and sustainability. Despite the fact that there is customers for green products, there is still many reasons for customers to be hesitant in regards to buying green products.

This research was conducted to study the factors effect on consumer's behaviour while purchasing eco-friendly products. A number of 1185 university students participated, data was analysed using multiple regression and exploratory factor. The main factor outcomes exhibited that affect green purchase behaviour were willingness to pay and green purchase intention. Environmental knowledge factor showed positive effect on green purchase behaviour, although demographic information showed no influence. The research suggested that policymakers and marketers in EU and Hungary will benefit from it for future studies (Naz et al., 2020).

### ***China***

This study applies the model of arranged conduct and order of significant worth disposition conduct to direct the impact of green item utilization values on green item buy conduct and the green item purchasing mentality. Besides, this flow concentrate on contrasts from past examination by adding the control impact of the media openness and government job to concentrate on hypothetical structure. The information was gathered in China through a web-based poll from 238 green item clients.

The conjectured connections were tried by primary condition demonstrating. The outcomes showed that monetary and biological worth no affects purchasing green item mentalities. Notwithstanding, the green item's wellbeing and security decidedly affect purchasing a green item mentality. Moreover, the purchasing disposition of clients emphatically affects green item buy conduct.

Additionally, the outcomes showed that the media openness and government job have directed the connection between purchasing green items demeanour and security esteems essentially (Zhao et al., 2019).

### ***Vietnam***

Nguyen et al., (2019) recently after the growth of green-marketing, Greenwash was the first go-to by firms to stay in the market. Supported through paradigm of cognition–affect–behaviour (C-A-B), this research assess theoretical framework associating greenwash with green purchase intentions and green skepticism.

The study also, assesses that information and knowledge has moderation impact on the relationship between green purchase intentions greenwash. Statistical data were collected through online questionnaire, 419 Vietnamese customers who used to purchase green vegetables.

The results showed a negative impact on green purchase intentions was in association by greenwash via using multivariate data analysis and there is a mediating role of green skepticism in this negative association. Additionally, there was also information and knowledge moderation impact.

The findings showed the association between green purchase intentions and greenwash and their impacts. In which that also showed a window for businesses that considering to lessen customers' skepticism and increase their willingness to buy green products.

### ***Turkey***

Today's businesses are looking for ways to be perceived as more environmentally friendly by increasing green brand equity as consumers become more environmentally concerned. Firms are responding to growing consumer awareness of the environment by introducing and developing in an environmentally friendly manner products. However, some consumers are still skeptical of environmental performance of companies and their products. Greenwashing, or misleading disclosure of green claims, it is a true green product and reduces the effectiveness of green marketing.

In this study, we proposed four components: greenwashing, green's perceived risk, green's turmoil, and green's trust. Predictor of green brand value for gas station companies. This study examined green wash awareness and green brand

equity. Also, green turmoil, green perceived risks, and the Green Trust for Green Brand Equity is tested. The study also developed a perceptual greenwash index.

It showed the direct effect of Green Wash on Green Brand Equity. The empirical analysis was based on data from 400 customers of a gas station company based in the capital Ankara – Turkey. The findings were analysed using the partial least squares (PLSPM) analysis method. Result demonstrated that consumer perceptions of greenwash have a positive impact on the risks of greens perceived as green turmoil, on the other hand, Green's turmoil and Green's perceived risks negatively impact Green's credibility. Expected green confidence with positive impact on green brand value. Furthermore, results indicated these consumers' perceptions of greenwashing has a negative impact on green brand equity (Demirgunes & Avcilar, 2017).

### ***Malaysia***

Kumar and Ghodeswar (2015) Consumer conduct is expanding altogether as the climate turns into a significant issue all over the planet. It has been changed and adjusted to be more manageable. This interest in the climate has prompted endeavours in business open doors for green items or eco-friendly items. The organization has begun the creation of green items to remain serious on the lookout. With the quantity of green items, there is developing distrust that organizations are starting to introduce endlessly deceptive data.

Just to create a gain and a standing for their green items. This buyer conviction is disturbing such organizations are considered to deter customers from purchasing. Likewise, the more youthful age they are viewed as more open to new data and possibly harmless to the ecosystem item purchaser. Close to green wariness, two of the most read up pointers for green buys most importantly, natural information and mindfulness were examined among youngsters.

Shoppers' goal to buy green. The study was led utilizing a 403 quantitative methodology. Respondents were examined utilizing the incomplete least squares (PLS) - SEM strategy. Subsequently, this study showed that there is just a slight adverse consequence on green buying with respect to green distrust.

While both ecological information and natural issues are positive and positive, purpose incredible effect on green buying goals. These outcomes might be valuable to the venture to comprehend and better foster youthful customers' green buying conduct and their promoting technique.

## **CHAPTER III**

### **Methodology**

#### **Design and Model of the Research**

An explanatory and descriptive design was used in this research study, where it aims to describe the response of the group targeted as university students in North Cyprus (undergraduate and graduate), through developed and self-administered questionnaire, that is limited to averages i: e; frequency distributions and summary statistics.

This study was carried out to collect the sample populations' data (numerical data), which is widely used in the economics studies and marketing, as well as, was conducted to assess and measure outcomes and the impacts/ outcomes of the arbitration role green skepticism and green purchase behaviour in relation to greenwashing.

The research study design included two sections structured questionnaire based survey, where section one is to identify population's different characteristics, such as age, gender, level of education.

The targeted sample was selected as previous literatures has shown educated participants are more suitable for having knowledge about green products, therefore will be able to follow, understand and interact with the questions raised regarding green context (Hedlund, 2011).

#### **Measurement of Constructs**

Measurement techniques was carried an unobtrusive mode for the structured questionnaire-based survey – section two - to reduce obtrusiveness among the sample population. Likert scales, where people have to select from 1 to 5 where (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree) was the questionnaire design. These questionnaires would help to identify tendencies and attitudes towards greenwashing, green skepticism as well as green purchase behaviour (Nguyen et al., 2019).

#### **Sampling and Data Collection**

The sampling strategy used homogeneous sampling for this study, as it was a useful method for focus group discussions, and it allowed the possibility to focus,

to reduce and to simplify the study. Data was collected from respondents via web-based (online) questionnaires in place of offline and face-to-face survey because of the outbreak of the pandemic Covid-19.

Table 3.1

*Age & Gender Cross-tabulation & Percentage*

<b>Age * Gender Cross tabulation</b>					
<b>Count</b>		<b>Gender</b>		<b>Total</b>	<b>Percentage</b>
		Female	Male		
<b>Age</b>	17 - 24	106	162	268	66.33%
	25 - 32	33	52	85	21.03%
	33 - 40	16	22	38	9.41%
	Above 40	5	8	13	3.21%
<b>Total</b>		160	244	404	404
<b>Percentage</b>		39.60	60.39%	100%	100%

***Tools (quantitative)***

To gather the necessary data, a descriptive method (deductive reasoning) - quantitative -correlational research- was applied. The questionnaire consisted of 3 multiple choice questions and 13 questions that dignified choosing 5 - point Likert scale. The questionnaire was firstly conducted with 500 university students (undergraduate and graduate) in North Cyprus. Questionnaires were distributed for the selected participants (university students in North Cyprus) to evaluate participants' response to corporate green behaviour under the effect of green skepticism and greenwash.

A student was defined as a person who assumingly had the basic knowledge about green product. Participants were given open of two months and a half to fill in the questionnaire online anonymously, and 404 students responded out of 500



from different universities and disciplines (Near East University, Eastern Mediterranean University and Cyprus International University). Because not all questionnaires targeted were responded, the 404 questionnaire results were included in the analysis. The percentage of 60.4% were males, 39.6% were females, 87.63 % were below the age of 33 years old, 9.4% were aged from 33 to 40, 3.21% above 40; 68.81% were undergraduate and 31.18% were graduate degree level (Table 3.1, 3.2, and, Figure 3.1, and 3.2).

Figure 3.1

*Bar Chart Age and Gender Cross tabulation*

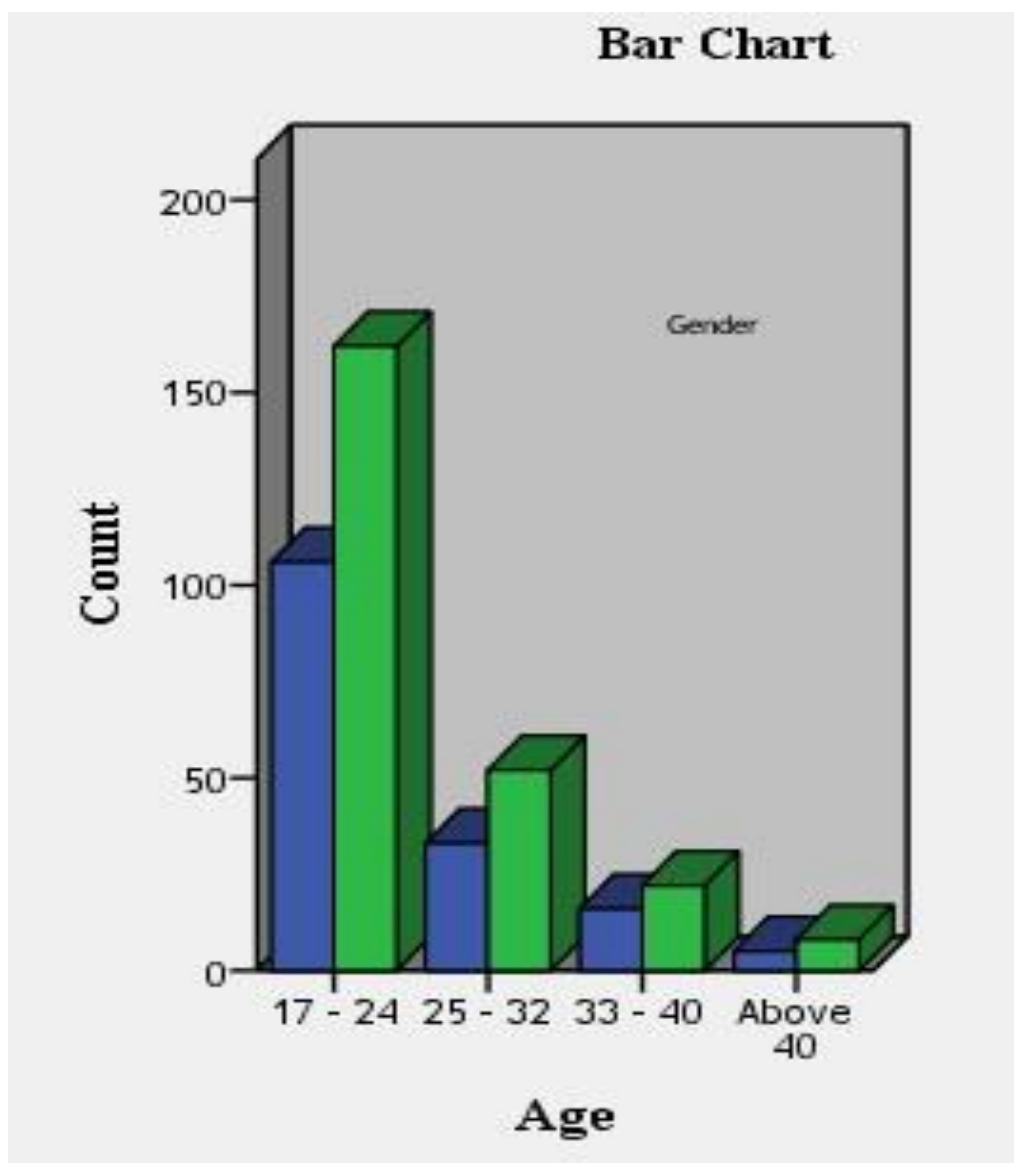
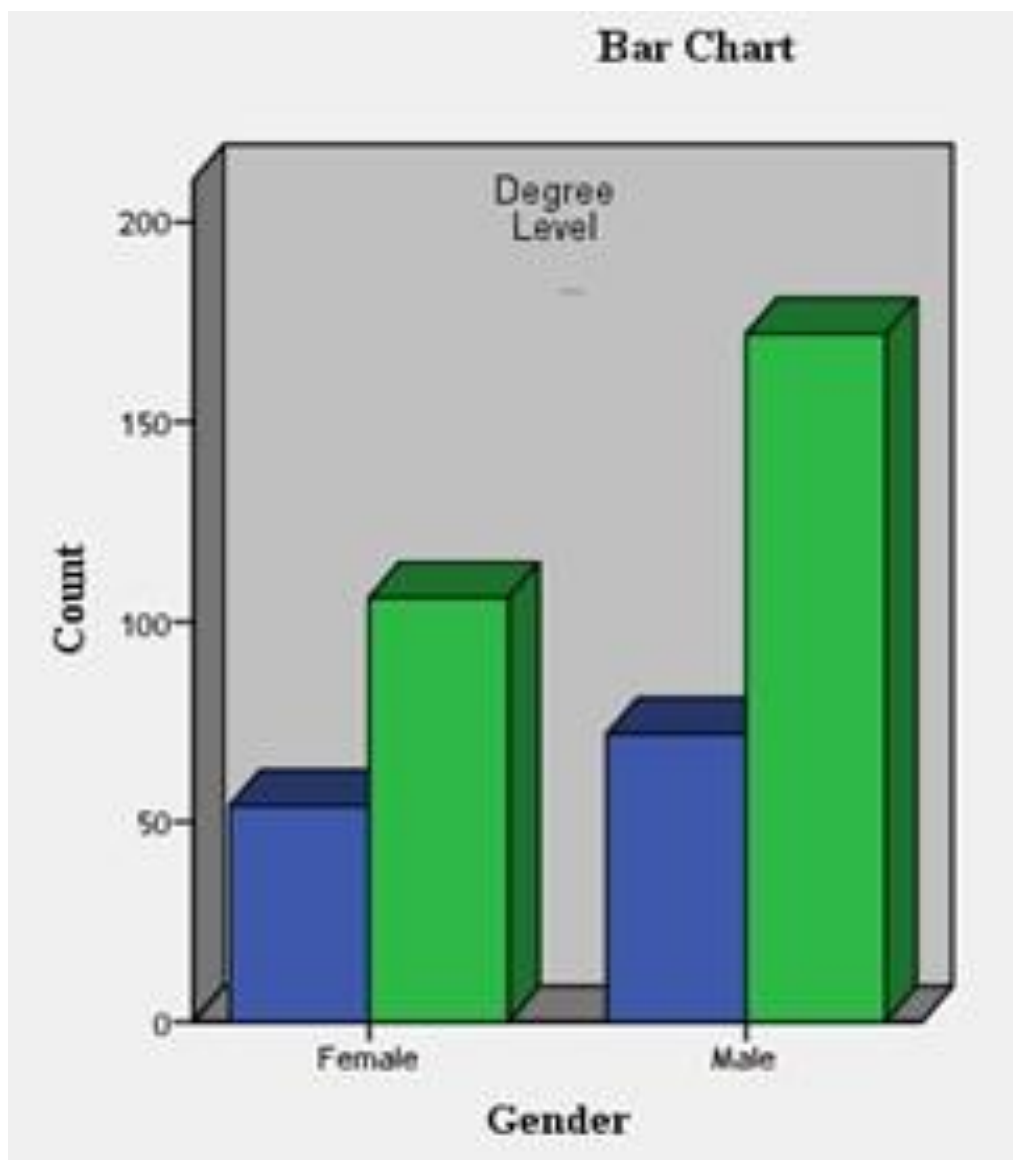


Table 3.2

*Gender & Degree Level Cross-tabulation & Percentage*

<b>Gender * Degree Level Cross tabulation</b>					
Count		Degree Level		Total	Percentage
		Graduate	Undergraduate		
Gender	Female	54	106	160	39.60%
	Male	72	172	244	60.39%
Total		126	278	404	100%
Percentage		31.18%	68.81%	404	100%

Figure 3.2

*Bar Chart Gender and Degree Level Cross tabulation*

## **Data Analysis Procedures**

### **Ethical Consideration**

The protection of the research study sample population i: e human participants, through the application of suitable ethical principles is important around conducting the research study. However, an Informed Consent will be prepared and distributed to all concerned participants.

Participants were fully informed and enlightened about the researcher, research purpose, intent of the research, participants inputs were collected, with required level of their commitments. The details and aspects of the consent was clearly considered and included participant's right to withdraw at any time without reasons, as well the assurance of importance of his or her identity to be kept confidential or anonymous. Moreover, the potential of harm to the participants was seriously considered. However, the prepared explicit consent was signed by all participants in taking part of the research.

### ***Data Analysis***

SPSS was used to convert raw information to quantitative data. Demographic data – section one – in the questionnaire as nominal and – section two – as scale to be analysed accordingly.

A descriptive statistics of the data e.g. mean, standard deviation, frequencies and percentages and inferential statistics were employed that include correlation tables described the relationship between Green Purchase Behaviour, Greenwash and Green Skepticism, regression analysis and run the Process Macro statistical method to analyse the mediation effect of green skepticism according to Andrew F. Hayes (Hayes, 2009) process completed with SPSS.

### ***Data Reliability & Validity / Trustworthiness***

Data was analysed through SPSS for reliability and validity as reported in which Cronbach's alpha is 0.935 (0.7 and higher) (Hair et. al., 1998) (Table 3.3) and each variable questions (Table 3.4, 3.5, and 3.6). Accordingly, Cronbach's alpha for all items is acceptable and reliable for the research study.

Table 3.3

*Cronbach's Alpha for all items***Reliability Statistics**

Cronbach's Alpha	N of Items
.935	13

Table 3.4

*Cronbach's Alpha for GW questions***Reliability Statistics**

Cronbach's Alpha	N of Items
.756	5

Table 3.5

*Cronbach's Alpha for GS questions***Reliability Statistics**

Cronbach's Alpha	N of Items
.791	4

Table 3.6

*Cronbach's Alpha for GPB questions***Reliability Statistics**

Cronbach's Alpha	N of Items
.839	4

## CHAPTER IV

### Findings and Discussion

Findings and discussion in this chapter are based on the data collection and analysis according to the study plan, materials used and SPSS results in each test needed for the research study.

#### Data Findings

After testing for reliability and validity for research questions, correlation relationship between variables, regression and a mediation analysis were performed through SPSS for all variables (Dependent, Independent and Mediator).

#### Hypothesis 1, 2, and 3 of the Research Study

##### *Correlation relationship between variables*

Results of table 4.1 indicated strong significant positive relationship between the variables with coefficients from 0.902, 0.933, and 0.962 at the 0.01 level (2-tailed test).

Table 4.1

##### *Correlation relationship between variables*

<b>Correlations</b>				
		GW	GS	GPB
GW	Pearson Correlation	1	.962**	.902**
	Sig. (2-tailed)		.000	.000
	N	404	404	404
GS	Pearson Correlation	.962**	1	.933**
	Sig. (2-tailed)	.000		.000
	N	404	404	404
GPB	Pearson Correlation	.902**	.933**	1
	Sig. (2-tailed)	.000	.000	
	N	404	404	404

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

## Hypothesis 4 and Research Model

### *Regression Analysis for variables*

Table 4.2

ANOVA

ANOVA<sup>a</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	235.969	1	235.969	1754.554	.000 <sup>b</sup>
	Residual	54.065	402	.134		
	Total	290.033	403			
2	Regression	252.338	2	126.169	1342.162	.000 <sup>c</sup>
	Residual	37.696	401	.094		
	Total	290.033	403			

a. Dependent Variable: GPB

b. Predictors: (Constant), GW

c. Predictors: (Constant), GW, GS

ANOVA results show a significant relationship between GPB and GW and GS. Pvalue is  $0.000 < 0.05$  which indicates the variation occurred in GPB due to GW and GS has a significant effect on GPB that means overall model is significant.

### ***Mediation matrix Model 4 for Relationship between GW, mediator GS and GPB***

As shown in Figure 4.1, mediation analysis was performed to represent GPB as Y – dependent variable -, GW as X – independent variable -, and GS as M – mediator for this research study to a total number of 404 university student participants from different study major and three universities (NEU, EMU, and CIU).

Figure 4.1

*Model 4 for Mediation analysis*

```

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.1 *****

      Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

*****

Model   : 4
  Y     : GPB
  X     : GW
  M     : GS

Sample
Size:   404

*****

```

*The effect of GW on GS*

Results in Figure 4.2 showed GW with coefficient of (1.0568),  $t = 70.6362$  and  $p = 0.000 < 0.05$  with LLCI = 1.0274, and ULCI = 1.0863. Based on the output results of  $p < 0.05$ , LLCI and ULCI isn't equal to Zero that indicates significant effect between X and M (GW and GS). Accordingly, this results satisfy the first condition of mediation effect in reference to (Hayes, 2009).

Figure 4.2

*The effect of GW on GS*

```

*****
OUTCOME VARIABLE:
  GS

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .9620    .9254    .0525  4989.4717    1.0000   402.0000    .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant  -.2256    .0475   -4.7518    .0000   -.3189   -.1323
GW         1.0568    .0150   70.6362    .0000    1.0274    1.0863

Standardized coefficients
      coeff
GW         .9620

```

### ***Direct and Indirect Effect between GPB -Y, GW-X, and GS- M***

Results in Figure 4.3 showed firstly, GW with coefficient of (0.0723),  $t = 0.9865$  And  $p = 0.3245 > 0.05$  with LLCI = -0.0718, and ULCI = 0.2164. Secondly, GS with coefficient of (0.8805),  $t = 13.1959$ , and  $p = 0.000 < 0.05$  with LLCI = 0.7494, and ULCI = 1.0117. Based on the first output results of  $p > 0.05$ , LLCI and ULCI that indicates insignificant effect between GW and GPB with Adding GS to the model which satisfy the forth condition of mediation (Hayes, 2009). While the second output satisfied the second condition of mediation (Hayes, 2009) with significant effect  $p < 0.05$  between GPB and GS.

Figure 4.3

### ***Direct and Indirect effect GPB, GW & GS***

```

*****
OUTCOME VARIABLE:
  GPB

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .9328      .8700      .0940  1342.1617      2.0000      401.0000      .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant      .0575      .0653      .8809      .3789      -.0708      .1858
GW      .0723      .0733      .9865      .3245      -.0718      .2164
GS      .8805      .0667      13.1959      .0000      .7494      1.0117

Standardized coefficients
      coeff
GW      .0650
GS      .8700

```

### ***Total Effect between GPB and GW***

Results in Figure 4.4 showed GW with coefficient of (1.0029),  $t = 41.8874$  and  $p = 0.000 < 0.05$  with LLCI = 0.9558, and ULCI = 1.0500. Based on the output results that indicates significant effect between X and Y (GW and GPB).

Accordingly, this results satisfy the third condition of mediation effect in reference to (Hayes, 2009).



Figure 4.4

*Total Effect between GPB and GW*

```

***** TOTAL EFFECT MODEL *****
OUTCOME VARIABLE:
GPB

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .9020     .8136     .1345  1754.5539     1.0000    402.0000     .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant  -.1411     .0760    -1.8578     .0639    -.2905     .0082
GW         1.0029     .0239    41.8874     .0000     .9558     1.0500

Standardized coefficients
      coeff
GW         .9020

```

**Discussion of the Findings****Hypothesis 1, 2, and 3 of the Research Study***Correlation relationship between the variables*

Correlation results based on the table 4.1 of research questionnaire (Nguyen et al., 2019) permission taken (Appendix B) to use the scale. Correlation results showed that there significant correlation at 0.01 (2-tailed test) between the variables in which.

GW has a positive relationship with GS with a Pearson correlation coefficient of 0.962 as strong.

GW and GS have a strong positive relationship with GPB with a Pearson correlation coefficient of 0.902, and 0.933 respectively.

H1 and H2 are not supported according to the results, where H3 is supported by data results.

## Hypothesis 4 and Research Model

### Regression Analysis

Table 4.3

#### Regression Analysis Model Summary

##### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.902 <sup>a</sup>	.814	.813	.36673
2	.933 <sup>b</sup>	.870	.869	.30660

a. Predictors: (Constant), GW

b. Predictors: (Constant), GW, GS

Pearson Correlation of the estimate of GPB with GW & GS,  $R=0.902$ , and  $0.933$  correspondingly, which indicate the degree and the direction of the relationship between variables (GPB, GW, and GS). Since it is positive that shows the relation in direction and strong effect. Adjusted R Square =  $0.813$ , and  $0.869$  respectively, that Adjusted R Square indicates the percentage of the variation in the variables.  $81.3\%$  and  $86.9\%$  of the variation in GPB is due to GW and GS, and the remaining percentage is due to other variables that aren't included in the model.

Table 4.4

#### Coefficients

##### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.141	.076		-1.858	.064
	GW	1.003	.024	.902	41.887	.000
2	(Constant)	.058	.065		.881	.379
	GW	.072	.073	.065	.986	.324
	GS	.881	.067	.870	13.196	.000

a. Dependent Variable: GPB

Model (1) results show that  $p\text{-value} = 0.000 < 0.05$ , GW significantly effect GPB.  $B = 1.003$ , as GW increases by one unit, GPB increases by 1.003.

Model (2) results show first row that  $p\text{-value} = 0.324 > 0.05$ , GW insignificantly effect GPB. Second row results show that  $p\text{-value} = 0.000 < 0.05$ , GS significantly effect GPB, and with  $B = 0.881$ , as GS increases by one unit, GPB increases by 0.881.

### ***Total, Direct, and Indirect effect of model of the study***

According to (Hayes, 2009), the mediation effect of mediation analysis is confirmed based on the results of indirect effect. Statistically, the indirect effect is defined as the difference between total effect and direct effect.

Based on results of Figure 4.3 coefficients and Figure 4.4, 4.5:

Total effect – Direct effect = Indirect Effect

$$1.0029 - 0.0723 = 0.9306$$

Coefficient of GW \* Coefficient of GS = Indirect Effect

$$1.0568 * 0.8805 = 0.9306$$

Figure 4.5

### ***Total, Direct, & Indirect Effect of GW on GPB***

```
***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y *****

Total effect of X on Y
  Effect      se      t      p      LLCI      ULCI      c_cs
  1.0029     .0239   41.8874  .0000   .9558     1.0500   .9020

Direct effect of X on Y
  Effect      se      t      p      LLCI      ULCI      c'_cs
  .0723     .0733    .9865   .3245  -.0718    .2164    .0650

Indirect effect(s) of X on Y:
  Effect      BootSE   BootLLCI  BootULCI
GS      .9306    .0816     .7682    1.0873

Completely standardized indirect effect(s) of X on Y:
  Effect      BootSE   BootLLCI  BootULCI
GS      .8370    .0754     .6884    .9830

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
  95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```

The existence of mediation effect in the study model is confirmed in equal results similarly with Figure 4.5 results macro PROCESS mediation analysis via bootstrap confidence interval of 5000 sample. H4 is supported as showed in the results of regression and mediation analysis.

## CHAPTER V

### Discussion

Discussion in this chapter is based on this research study's findings with a comparison to the previous literature reviews on the related studies.

The research study has supported the model in several ways. Firstly, this research study has conferred the relationship between Greenwash and Green Purchase Behaviour with mediation impact of Green Skepticism.

The Study has also, showed undergraduate students aged between 17 to 24 years old in North Cyprus are aware of the context of ecological value correspondingly to (Mohr et al., 1998), that a positive relationship occurs between Greenwash and

Green Skepticism which indicates the high level of awareness regarding organization's persuasion of Greenwash to attract green consumers that decreases their willingness to purchase green products (Chen & Chang, 2013).

As customers perceive green products as high risk due to their doubts about true ones (Yiridoe et al., 2005), participants' results in the research study showed The hypotheses construed from previous research indicated that there is a negative association between Green Purchase Behaviour with Greenwash and Green Skepticism, while there is a positive association between Green Skepticism and Greenwash.

Correlation results in this research study showed that there significant correlation at 0.01 (2-tailed test) between the variables in which GW has a positive relationship with GS with a Pearson correlation coefficient of 0.962 as strong, which supports the previous studies' hypothesis. Greenwash with a misleading business marketing and missing information in regards to green products affect positively Customer's Green Skepticism and distrust. GW and GS have a strong positive relationship with GPB with a Pearson correlation coefficient of 0.902, and 0.933 respectively, the previous studies' hypotheses unsupported. The direction of the relation between variables was confirmed and model of study resulted in significant overall model by regression analysis.

Despite the Greenwash business practice and customers' skepticism, customers may find themselves willing to purchase green products in the future and for health reasons which signpost the complexity in customers' behaviour to be considered in future studies. Per previous literature, consequently, organizations

may be able to offer a realistic opportunity to stay in the green market or continue with their recent strategies.

Secondly, as the previous literature reveals that scholars have deliberated the direct relationship between the green purchase intention and green skepticism to buy green products and in some as a moderating and/or mediating factor and found that there is a significant negative impact on each other (Foreh and Grier, 2003).

Moreover, in the research study in North Cyprus among university students, results of PROCESS macro mediation analysis model 4 figure 8 an equal results in comparison to total effect – direct effect and path a \* path b (GS – GW \* GS – GPB). Conclusively, Green Skepticism partially mediates the relationship between Greenwash and Green Purchase Behaviour in which that indicates improvement in understanding the negative impact of Greenwash on Green Purchase Behaviour that supports H4.

Lastly, guidance, effective information, and Green programs should be made by collective professionals such as social organizations, policymakers, and the organization's marketing team (Naz et al., 2020) to increase consumer interest and awareness about green programs and business-related performance, as a result, it will help enrich customer's knowledge and perception of eco-friendly products and services.

## **CHAPTER VI**

### **Results and Recommendation**

#### **Summary of the Results**

The findings of the research study shed light on how green life is evolving nowadays, and for businesses to cope well with this change; Greenwash and Green Skepticism are not obstacle in regards to their relationship with Green Purchase Behaviour as resulted in this study as customers see it as not deceptive as claims. But, businesses should way on the effect of both variables not to negatively impact Green Purchase Behaviour. As results show a positive effects of Greenwash on Green Purchase Behaviour, and Green Skepticism as well. It can also, be interpreted as a marketing tool to attract more customers based on a reliable and true image and consumers' curiosity could be valuable.

Though Green Purchase Behaviour is more of a generalized dependent variable than Green Purchase Intention as in previous research, results could be of help to determine which is more suitable for future studies and predict precisely customer's willingness to purchase and influence others' green purchasing.

The findings might increase the opportunity for businesses to enhance their corporate social responsibilities performance and programs by creating or focusing on developing eco-friendly practices to improve the quality of green products and build a trustworthy communication line with their customers' observances.

Furthermore, the study would inspire marketing teams improving quality of green business to reflect consumer loyalty and promote their goods and service with credibility.

For business environmental-related strategies to be viable, it is also recommended to train retailers about business approaches to green processes in an effective way to deliver information efficiently to customers.

In summary, it is recommended for businesses to establish well-built strategies in regard to their green growth and programs and to invest time in evaluating their work through marketing campaigns and promotion. Then, to seek accreditation by international standards and recognition agencies to avoid any future impact of Greenwash and Green Skepticism on business credibility and consumer trustworthiness.

## **Conclusion**

Environmental awareness become the recent trend to save the earth and live a long healthy life. Due to that, governments continuously working on updated effective measures to protect the ecological system. Programs and practices of saving energy and reducing of are increasing awareness among customers to reflect on their consumption patterns.

This research study was conducted to understand the relationship between green skepticism and greenwash on green purchase behaviour of university students in North Cyprus.

The findings exhibited that the overall model is significant through regression analysis, and the positive influence on Green Purchase Behaviour through Green Skepticism factor indicates that despite green consciousness among age groups is high and may lead to the possibility of purchasing green products or services, and doubts in regards to environmental claims are an indirect reason to buy.

As for Greenwash, findings showed a positive effect on Green Purchase though greenwash exists in some businesses, customer perception contradicts literature from previous studies findings. Findings showed greenwash isn't as deceptive as claims.

While green skepticism was a mediator, findings showed there was an indirect effect with the non-significant direct effect of Greenwash on Green Purchase Behaviour with the inclusion of Green Skepticism that resulted in partial mediation. This concludes that, H3 and H4 are supported, while H1, and H2 are not supported in this research study.

## **Recommendations**

The findings of the research study shed light on how green life is evolving nowadays, and for businesses to cope well with this change; Greenwash and Green Skepticism are not obstacle in regards to their relationship with Green Purchase Behaviour as resulted in this study as customers see it as not deceptive as claims. But, businesses should way on the effect of both variables not to negatively impact Green Purchase Behaviour.

As results show a positive effects of Greenwash on Green Purchase Behaviour, and Green Skepticism as well.



It can also, be interpreted as a marketing tool to attract more customers based on a reliable and true image and consumers' curiosity could be valuable.

Though Green Purchase Behaviour is more of a generalized dependent variable than Green Purchase Intention as in previous research, results could be of help to determine which is more suitable for future studies and predict precisely customer's willingness to purchase and influence others' green purchasing.

The findings might increase the opportunity for businesses to enhance their corporate social responsibilities performance and programs by creating or focusing on developing eco-friendly practices to improve the quality of green products and build a trustworthy communication line with their customers' observances.

Furthermore, the study would inspire marketing teams improving quality of green business to reflect consumer loyalty and promote their goods and service with credibility.

For business environmental-related strategies to be viable, it is also recommended to train retailers about business approaches to green processes in an effective way to deliver information efficiently to customers.

In summary, it is recommended for businesses to establish well-built strategies in regard to their green growth and programs and to invest time in evaluating their work through marketing campaigns and promotion. Then, to seek accreditation by international standards and recognition agencies to avoid any future impact of Greenwash and Green Skepticism on business credibility and consumer trustworthiness.

## References

- Albayrak, T., Caber, M., Moutinho, L., & Herstein, R. (2011).  
The influence of skepticism on green purchase behaviour.  
*International Journal Business and Social Science*, 2 (13), 189–197.  
<https://eprints.gla.ac.uk/84960/>
- Ansu-Menash P. (2021). Green product awareness effect on green purchase  
Intentions of university students’: an emerging market’s perspective.  
*Future Business Journal* 7, 48 (2021).  
<https://doi.org/10.1186/s43093-021-00094-5>
- Arvola, M. Vassallo, M. Dean, P. Lampila, A. Saba, L. Lähteenmäki, R.  
Shepherd (2008), Predicting intentions to purchase organic food: The  
role of affective and moral attitudes in the Theory of Planned  
Behaviour *Appetite*, 50 (2) pp. 443-454  
<https://www.sciencedirect.com/science/article/abs/pii/S0195666307003728>
- Ayoun, S., Ben Cheikh, A., Abdellatif, T. & Ghallab, N. (2015). Purchase  
Intention of Green Product: An Approach Based Customer  
Orientation. *SSRN Electronic Journal*.  
<https://doi.org/10.2139/ssrn.2583517>
- Barretta, E. U. P. G. (2016). How green are you, really? Consumers’  
Skepticism toward brands with green claims. *Journal of Management  
Development*, 7(1). <https://doi.org/10.1108/JGR-11-2015-00214>.
- Bonini, S., & Oppenheim, J. (2008). Cultivating the green consumer.  
*Stanford Social Innovation Review*, 6(4), 56-61.  
[https://ssir.org/articles/entry/cultivating\\_the\\_green\\_consumer#](https://ssir.org/articles/entry/cultivating_the_green_consumer#)

- Booi Chen, T. & Teck Chai, L. (2010). Attitude towards the Environment and Green Products: Consumers' Perspective. *Management Science and Engineering*, 4(2), 27–39.  
<https://www.researchgate.net/publication/228500580> Attitude towards the Environment and Green Products Consumers' Perspective
- Bui, My H. (2005). Environmental marketing: *a model of consumer behaviour*. Loyola. Castillo, J. J. (2009). *Sample Random Sampling*.  
<https://doi.org/10.6115/ijhe.2014.15.2.43>
- Chang, C. H. (2011). The Influence of Corporate Environmental Ethics on Competitive Advantage: The Mediation Role of Green Innovation. *Journal of Business Ethics*, 104(3), 361–370.  
<http://www.jstor.org/stable/41476093>
- Chen, Y.-S., & Chang, C.-H. (2013). Greenwash and green trust: The mediation effects of green consumer confusion and green perceived risk. *Journal of Business Ethics*, 114(3), 489–500.  
<https://doi.org/10.1007/s10551-012-1360-0>
- Cherian, J. & Jacob, J. (2012). Green marketing: A study of consumers' attitude towards environment friendly products. *Asian Social Science*, 8(12), 117–126. <https://doi.org/10.5539/ass.v8n12p117>.
- Cronin, J., Smith, J., Gleim, M., Ramirez, E., Martinez, J. (2011), Green marketing strategies: an examination of stakeholders and the opportunities they present, *Journal of the Academy of Marketing Science*, 39, pp. 158-174. DOI:[10.1007/s11747-010-0227-0](https://doi.org/10.1007/s11747-010-0227-0)
- Delmas, M. A., Nairn-Birch, N., & Balzarova, M. (2013). Choosing the right eco-label for your product. *MIT Sloan Management Review*, 54(4), 10.  
<https://www.ioes.ucla.edu/publication/choosing-right-eco-label-product/>

- Demigunes, B., Avcilar, M. (2017). Developing Perceived Greenwash Index and Its Effect on Green Brand Equity: A Research on Gas Station Companies in Turkey. *Journal of International Business Research* <https://doi.org/10.5539/ibr.v10n1p222>
- Europäische Kommission (2009), Flash Eurobarometer 256 (*Europeans' attitudes towards the issue of sustainable consumption and production*). GESIS Data Archive, Cologne. ZA4983 Data file Version 1.0.0, <https://doi.org/10.4232/1.4983>.
- Foreh, M. R., & Grier, S. (2003). When is honesty the best policy? The effect of stated company intent on consumer skepticism. *Journal of Consumer Psychology*, 13(3), 349-356 [https://doi.org/10.1207/S15327663JCP1303\\_15](https://doi.org/10.1207/S15327663JCP1303_15)
- GFK (2013), “*The environment: public attitudes and individual behaviour – a twenty-year evolution [EB/OL]*”, available at: <http://www.doc88.com/p-7428907492884.html>.
- Goh S. K, and Balaji M.S. (2016). Linking green skepticism to green Purchase behaviour. *Journal of Cleaner Production*, 131, 629-638 DOI: [10.1016/j.jclepro.2016.04.122](https://doi.org/10.1016/j.jclepro.2016.04.122)
- Guo, R.; Tao, L.; Li, C.B.; Wang, T. (2017) A path analysis of greenwashing in a trust crisis among Chinese energy companies: The role of brand legitimacy and brand loyalty. *J. Bus. Ethics* 2017, 140, 523–536. <https://ideas.repec.org/cgi-bin/refs.cgi>
- Hair, J.F.; Anderson, R.E.; Tatham, R.L.; Black, W.C. (1998), *Multivariate Data Analysis*; Prentice-Hall: Upper Saddle River, NJ, USA. <https://www.drnishikantjha.com/papersCollection/Multivariate%20Data%20Analysis.pdf>

- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76, 408-420.  
<https://doi.org/10.1080/03637750903310360>
- Hedlund, T., (2011) The impact of values, environmental concern, and willingness to accept economic sacrifices to protect the environment on tourists' intentions to buy ecologically sustainable tourism alternatives. *Tour. Hosp. Res* 11 (4), 278–288.  
<https://doi.org/10.1177/1467358411423330>
- Vermeir, W. Verbeke (2006), Sustainable food consumption: Exploring the consumer “attitude–behavioural intention” gap. *Journal of Agricultural and Environmental Ethics*, 19 (2) pp. 169-194.  
DOI:[10.1108/BFJ-12-2013-0361](https://doi.org/10.1108/BFJ-12-2013-0361)
- J. Bray, N. Johns, D. Kilburn (2011), An exploratory study into the factors impeding ethical consumption. *Journal of Business Ethics*, 98 (4) pp. 597-608. <https://doi.org/10.1007/s10551-010-0640-9>
- 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>
- J. Moisander (2007), Motivational complexity of green consumerism. *International Journal of Consumer Studies*, 31 (4) pp. 404-409.  
<https://doi.org/10.1111/j.1470-6431.2007.00586.x>
- Kim, Y.J., Lee, W.N., (2009). Overcoming consumer skepticism in cause Related Marketing: the effects of corporate social responsibility and donation size claim objectivity. *Journal of Promotion. Management*. 15 (4), 465e483. DOI:[10.1080/10496490903270232](https://doi.org/10.1080/10496490903270232)
- Kumar, P., Ghodeswar, B.M., (2015). Factors affecting consumers' green Product Purchase decisions. *Journal of Marketing Intelligence & Planning*, 0263-4503. DOI:[10.1108/MIP-03-2014-0068](https://doi.org/10.1108/MIP-03-2014-0068)

- Laufer, W.S. (2003). Social accountability and corporate greenwashing. *Journal of Business Ethics*, 43, 253–261. <https://www.jstor.org/stable/25074996>
- L.A. Mohr, D.J. Webb, K.E. Harris (2001), Do consumers expect companies to be socially responsible? The impact of corporate social responsibility on buying behaviour. *Journal of Consumer affairs*, 35 (1) pp. 45-72. <https://doi.org/10.1111/j.1745-6606.2001.tb00102.x>
- Leire, C.; Thidell, Å. (2005) Product-related environmental information to Guide Consumer purchases - a review and analysis of research on perceptions, understanding and use among Nordic consumers. *J. Clean. Prod.* 2005, 13, 1061–1070. <https://doi.org/10.1016/j.jclepro.2004.12.004>
- Leonidou, C.N.; Skarmeas, D. (2015) Gray shades of green: Causes and consequences of green skepticism. *J. Bus. Ethics.* 2015, 144, 401–415. [DOI:10.1007/s10551-015-2829-4](https://doi.org/10.1007/s10551-015-2829-4)
- L. Schmeltz (2012), Consumer-oriented CSR communication: focusing on ability or morality? *Corporate Communications: An International Journal*, 17 (1) pp. 29-49. <https://onlinelibrary.wiley.com/doi/pdf/10.1111/joms.12196>
- Lyon, T.P.; Montgomery, A.W. (2015) The means and end of greenwash. *Organ Environ.* 2015, 28, 21–36. <https://doi.org/10.1177/1086026615575332>
- Maichum, K., Parichatnon, S. & Peng, K.-C. (2017). the Influence of Environmental Concern and Environmental Attitude on Purchase Intention towards Green Products: A Case Study of Young Consumers in Thailand. *International Journal of Business Marketing and Management*, 2(3), 2456–4559. <http://www.ijbmm.com/paper/Mar2017/364253782.pdf>

- Marchand, A.; Walker, S. (2008) Product development and responsible consumption: Designing alternatives for sustainable lifestyles. *J. Clean. Prod.* 2008, 16, 1163–1169.  
<https://doi.org/10.1016/j.jclepro.2007.08.012>
- Matthes, J., Wonneberger, A. (2014). The sceptical green consumer revisited: testing the relationship between green consumerism and skepticism toward advertising. *J. Advert.* 43, 115-127.  
<https://doi.org/10.1080/00913367.2013.834804>
- Mohr, L. A., Eroglu, D., and Ellen, P. S. (1998). The development and testing of a measure of skepticism toward environmental claims in marketers' communications. *Journal of Consumer Affairs*, 32(1), 3055. <https://doi.org/10.1111/j.1745-6606.1998.tb00399.x>
- Naz, I., Olah, J., Vasile, D., Magda, R., (2020). Green Purchase Behaviour Of University Students in Hungary: An Empirical Study. *Journal of Sustainability* 2020, 12(23), 10077; <https://doi.org/10.3390/su122310077>.
- Nguyen, T., Yang, Z., Nguyen, N., Johnson, L., Cao, T. (2019). Greenwash & Green Purchase Intention: The Mediating Role of Green Skepticism. *Journal of Sustainability* 2019, 11(9), 2653; <https://doi.org/10.3390/su11092653>
- Newton, J. D., Tsarenko, Y., Ferraro, C., & Sands, S. (2015). Environmental concern and environmental purchase intentions: The mediating role of learning strategy. *Journal of Business Research*, 68(9), 1974-1981. DOI: [10.1016/j.jbusres.2015.01.007](https://doi.org/10.1016/j.jbusres.2015.01.007)
- Nyilasy, G., Gangadharbatla, H., & Paladino, A. (2014). Perceived greenwashing: The interactive effects of green advertising and corporate environmental performance on consumer reactions. *Journal of Business Ethics*, 125(4), 693-707.  
[DOI:10.1007/s10551-013-1944-3](https://doi.org/10.1007/s10551-013-1944-3)

- Obermiller, C., Spangenberg, E.R., (1998). Development of a scale to measure consumer skepticism toward advertising. *Journal of Consumer Psychology*. 7 (2), 159e186.  
[DOI:10.1207/S15327663JCP0702\\_03](https://doi.org/10.1207/S15327663JCP0702_03)
- Orange, E., & Cohen, A. M. (2010). From eco-friendly to eco-intelligent. *The Futurist*, 44(5), 28–32. [https://www.thefreelibrary.com/From eco-friendly to eco-intelligent: so-called "green" products are...-a0235729811](https://www.thefreelibrary.com/From+eco-friendly+to+eco-intelligent:+so-called+%22green%22+products+are...-a0235729811)
- D Oktay, A Saymanlier, P Uluçay, A Ozgorun (2003) Towards sustainable development strategy for Buyuk konuk village, Northern Cyprus - *WIT Transactions on Ecology and the Environment* 63.  
<https://www.witpress.com/Secure/elibrary/papers/ECO03/ECO03054FU1.pdf>
- Patel, J. D., Gadhavi, D. D., & Shukla, Y. S. (2016). Consumers' responses to cause related marketing: moderating influence of cause involvement and skepticism on attitude and purchase intention. *International Review on Public and Nonprofit Marketing*, 1-18.  
[https://www.infona.pl/resource/bwmeta1.element.springer-doi-10\\_1007-S12208-016-0151-1](https://www.infona.pl/resource/bwmeta1.element.springer-doi-10_1007-S12208-016-0151-1)
- P.S. Ellen, D.J. Webb, L.A. Mohr (2006), Building corporate associations: Consumer attributions for corporate socially responsible programs. *Journal of the Academy of Marketing Science*, 34 (2) pp. 147-157.  
<https://www.jstor.org/stable/41475975>
- Papadopoulas, I., Karagouni, G., Tigkas, M. and Platogianni, E. (2010) "Green marketing: the case of Greece in certified and sustainably managed timber products". *Euro Med Journal of Business*, Vol. 5 No.2, pp. 166-190.  
<https://www.emerald.com/insight/content/doi/10.1108/14502191011065491/full/html>



- Pomering, A., Johnson, L.W., (2009). Constructing a Corporate Social Responsibility Reputation Using Corporate Image Advertising. *Australasian Marketing Journal*, 17(2), 106  
114.<https://doi.org/10.1016/j.ausmj.2009.05.006>
- Rahman, I., Park, J., & Chi, C. G. Q. (2015). Consequences of “greenwashing” consumers’ reactions to hotels’ green initiatives. *International Journal of Contemporary Hospitality Management*, 27 (6), 1054–1081. doi:10.1108/IJCHM-04-2014-0202
- Raska, D., & Shaw, D. (2012). When is going green good for company image? *Management Research Review*, 35(3/4), 326-347.  
<https://doi.org/10.1108/01409171211210190>
- Rosen, G., 2004. Skepticism about moral responsibility. *Philosophical Perspective*. 18 (1), 295e313.  
<https://doi.org/10.1111/j.1520-8583.2004.00030.x>
- S.C. Grunert, H.J. Juhl (1995), Values, environmental attitudes, and buying of organic Foods. *Journal of economic psychology*, 16 (1) pp. 39-62.  
[https://doi.org/10.1016/0167-4870\(94\)00034-8](https://doi.org/10.1016/0167-4870(94)00034-8)
- S. Bockman, Y. Razzouk, B. Sirotnik (2009), Going green – from left to centre stage: An empirical perspective. *Journal of the American Academy of Business*, 14 (2) pp. 8-17. <https://doi.org/10.1016/j.ism.2015.04.001>
- Tanner, C., & Kast, S. W. (2003). Promoting sustainable consumption: determinants of green purchases by Swiss consumers. *Psychological Marketing*, 20, 883-902.  
<http://dx.doi.org/10.1002/mar.10101>.
- V. Veleva, M. Ellenbecker (2001), Indicators of sustainable production: framework and methodology *Journal of Cleaner Production*, 9 (6) pp. 519-549. DOI:[10.1007/s10098-003-0221-z](https://doi.org/10.1007/s10098-003-0221-z)

- Vanhamme, J., & Grobben, B. (2009). "Too good to be true!".  
The effectiveness of CSR history in countering negative publicity.  
*Journal of Business Ethics*, 85(2), 273-283.  
<https://dergipark.org.tr/en/pub/jmml/issue/51259/667163>
- Vehbi, Beser O., Kağan Günçe, and Aminreza Iranmanesh. (2021).  
"Multi-Criteria Assessment for Defining Compatible New Use:Old  
Administrative Hospital, Kyrenia, Cyprus"*Sustainability* 13, no. 4:  
1922. <https://doi.org/10.3390/su13041922>
- X. Liu, C. Wang, T. Shishime, T. Fujitsuka (2012), Sustainable consumption:  
Green purchasing behaviours of urban residents in China. *Sustainable  
Development*, 20 (4) pp. 293-308. <https://doi.org/10.1002/sd.484>
- Yadav, R. & Pathak, G. S. (2016). Young Consumers' intention towards  
Buying Green Products in a developing nation: Extending the theory  
of planned behaviour. *Journal of Cleaner Production*, 135, 732–739.  
<https://doi.org/10.1016/j.jclepro.2016.06.120>
- Yazdanifard, R., & Mercy, I.E. (2011). The impact of Green Marketing on  
Customer satisfaction and Environmental safety.  
<https://www.semanticscholar.org/paper/The-impact-of-Green-Marketing-on-Customer-and-Envi-Yazdanifard-Mercy/cb3927334b3e89761d573caaf47cff55c22ec2d6>
- Yiridoe, E. K., Bonti-Ankomah, S., & Martin, R. C. (2005).  
Comparison of consumer perceptions and preference toward organic  
versus conventionally produced foods: A review and update of the  
literature. *Renewable Agriculture & Food Systems*, 20(4), 193–205.  
[Doi:10.1079/RAF2005113](https://doi.org/10.1079/RAF2005113)
- Zarei, A. & Maleki, F. (2018). From Decision to Run: The Moderating Role  
of Green Skepticism. *Journal of Food Products Marketing*, 24(1),  
96–116. <https://doi.org/10.1080/10454446.2017.1266548>.

Zhao, L., Lee, S.H., Copeland, L.R., (2019). Social Media & Chinese Consumers' Environmentally Sustainable Apparel Purchase Intentions. *Journal of Marketing & Logistics*.  
<http://dx.doi.org/10.1108/APJML-08-2017-0183>

**Appendices**  
**Appendix A**  
**Ethics Committee Approval**



**BİLİMSEL ARAŞTIRMALAR ETİK KURULU**

07.01.2022

Dear Isra Mustafa Mohamed Elamin

Your application titled **“The Relationship between Greenwash, mediating role of Green Skepticism and Green Purchase Behaviour”** with the application number NEU/SS/2021/1151 has been evaluated by the Scientific Research Ethics Committee and granted approval. You can start your research on the condition that you will abide by the information provided in your application form.

Assoc. Prof. Dr. Direnç Kanol

Rapporteur of the Scientific Research Ethics Committee

**Note:** If you need to provide an official letter to an institution with the signature of the Head of NEU Scientific Research Ethics Committee, please apply to the secretariat of the ethics committee by showing this document.

## Appendix B

### Permission Regarding the Use of Scales

From: **Lester Johnson** <[lwjohnson@swin.edu.au](mailto:lwjohnson@swin.edu.au)>

Date: Sat, Nov 27, 2021, 2:15 PM

Subject: Re: Permission to use the questionnaire

To: Isra Elamin <[ddyram@gmail.com](mailto:ddyram@gmail.com)>

OK with me

Professor Lester W Johnson

School of Business, Law and Entrepreneurship

Swinburne University of Technology

Hawthorn, Victoria 3122

Australia

---

**From:** Isra Elamin <[ddyram@gmail.com](mailto:ddyram@gmail.com)>

**Sent:** Saturday, 27 November 2021 12:31 AM

**To:** Lester Johnson <[lwjohnson@swin.edu.au](mailto:lwjohnson@swin.edu.au)>

**Subject:** Permission to use the questionnaire

Dear Professor,

Hope this email finds you well.

I'm Isra Mustafa Elamin, Master student of International Business at Near East University - North Cyprus.

I would like to take your permission to use the questionnaire in the research paper

"Greenwash and Green Purchase Intention: The Mediating Role of Green Skepticism

May 2019 Sustainability 11(9):2653

DOI:10.3390/su11092653" for my research study.

Your response is greatly appreciated.

Thank you,

ISRA ELAMIN

[ddyram@gmail.com](mailto:ddyram@gmail.com)

## Appendix C

### Questionnaire-based Survey:

#### Description:

As a part of Master Degree of International Business at Near East University, North Cyprus, I'm conducting a research study titled: **The Relationship between Greenwash, mediating role of Green Skepticism and Green Purchase Behaviour.**

The questionnaires will be related to the title for data collection and analysis; therefore, your participation is highly appreciated.

Any information obtained in connection to the study will remain confidential.

#### Participant's declaration/Information:

I, hereby agree to participate in the research study mentioned above, and I understood that my participation is voluntary. No information that may identify me will be included in the research report, and my responses will remain confidential.

Age:

Gender:

Degree Level:

#### Research Questionnaires:

Please rate your level of agreement with each statement (*1 to 5 Likert Scale*):

I) Greenwash Statement		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Green product misleads with words in its environmental features.					
2	Green product misleads with visuals or graphics in its environmental features.					

3	<i>Green</i> product possesses a green claim that is vague or seemingly unprovable.					
4	<i>Green</i> product overstates or exaggerates how its green functionality actually is.					
5	<i>Green</i> product leaves out or masks important information, making the green claim sound better than it is.					
<b>II) Green Skepticism Statement</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
1	Most environmental claims made on package labels or in advertising are true.					
2	Because environmental claims are exaggerated, consumers would be better off if such claims on package labels or in advertising were eliminated.					
3	Most environmental claims on package labels or in advertising are intended to mislead rather than to inform consumers.					
4	I do not believe in most of the environmental claims made on package labels or in advertising.					
<b>III) Green Purchase Behaviour Statement</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>

1	I will consider buying green products because they are less polluting in coming times.					
2	I will consider switching to environmental friendly green <i>products</i> for health reasons.					
3	I definitely want to purchase green <i>products</i> in the near future.					
4	I would also recommend others to buy green <i>products</i> .					

N.B.

- **Greenwash, Green Skepticism and Green Purchase Behaviour** *Nguyen, Thi T.H., Zhi Yang, Ninh Nguyen, Lester W. Johnson, and Tuan K. Cao 2019. "Greenwash and Green Purchase Intention: The Mediating Role of Green Skepticism" Sustainability 11, no. 9: 2653. <https://doi.org/10.3390/su11092653>*



## Appendix D

### Turnitin Similarity Report

SIMILARITY REPORT			
ORIGINALITY REPORT			
<b>5</b> %	<b>3</b> %	<b>3</b> %	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS
PRIMARY SOURCES			
<b>1</b>	Yu-Shan Chen, A-Fen Huang, Ting-Yu Wang, Ying-Rong Chen. "Greenwash and green purchase behaviour: the mediation of green brand image and green brand loyalty", Total Quality Management & Business Excellence, 2018 Publication		<b>1</b> %
<b>2</b>	etd.aau.edu.et Internet Source		<b>1</b> %
<b>3</b>	toc.123doc.net Internet Source		< <b>1</b> %
<b>4</b>	Sheikh Raheel Manzoor, Hafiz Ullah, Murad Hussain, Zulqarnain Muhammad Ahmad. "Effect of Teamwork on Employee Performance", International Journal of Learning and Development, 2011 Publication		< <b>1</b> %
<b>5</b>	www.coursehero.com Internet Source		< <b>1</b> %

6	Edward E. Marandu, Forbes Makudza, Sothini N. Ngwenya. "Predicting Students' Intention and Actual Use of E-Learning Using the Technology Acceptance Model: A Case from Zimbabwe", International Journal of Learning, Teaching and Educational Research, 2019 Publication	<1 %
7	commons.emich.edu Internet Source	<1 %
8	content.sciendo.com Internet Source	<1 %
9	thesis.univ-biskra.dz Internet Source	<1 %
10	pdfs.semanticscholar.org Internet Source	<1 %
11	R.V. ShabbirHusain, Sanjeev Varshney. "Is Current Way of Promoting Sustainability, Sustainable?", Journal of Nonprofit & Public Sector Marketing, 2018 Publication	<1 %
12	etd.ohiolink.edu Internet Source	<1 %
13	bspace.buid.ac.ae Internet Source	<1 %
14	Hana A.B Elammari, Nadire Cavus. "Investigating the Factors Affecting Students'	<1 %

Smartphone Purchasing Behaviors in the  
Context of Mobile Learning", International  
Journal of Emerging Technologies in Learning  
(IJET), 2019

Publication

15	<a href="https://hdl.handle.net">hdl.handle.net</a> Internet Source	<1 %
16	<a href="https://docplayer.info">docplayer.info</a> Internet Source	<1 %
17	<a href="https://eprints.utar.edu.my">eprints.utar.edu.my</a> Internet Source	<1 %
18	<a href="https://repository.sustech.edu">repository.sustech.edu</a> Internet Source	<1 %
19	Magdalena Bekk, Matthias Spörrle, Rebekka Hedjasie, Rudolf Kerschreiter. "Greening the competitive advantage: antecedents and consequences of green brand equity", Quality & Quantity, 2015 Publication	<1 %
20	<a href="https://acikbilim.yok.gov.tr">acikbilim.yok.gov.tr</a> Internet Source	<1 %
21	<a href="https://ijbassnet.com">ijbassnet.com</a> Internet Source	<1 %
22	<a href="https://repository.president.ac.id">repository.president.ac.id</a> Internet Source	<1 %

[www.gssrr.org](http://www.gssrr.org)

23	Internet Source	<1 %
24	Sheikh Raheel Manzoor, Ahmer Naveed, Syed Habib Shah. "Arising Sales force Motivation Due to Organizational Justice", International Journal of Learning and Development, 2012 Publication	<1 %
25	Gege Wang, Shulin Liu. "Is technological innovation the effective way to achieve the "double dividend" of environmental protection and industrial upgrading?", Environmental Science and Pollution Research, 2020 Publication	<1 %
26	Tan, Booi-Chen, Nasreen-Khan -, Yong-Hoe Hong, and Woon-Har Lam. "The Influence of Environmental Values on Green Purchase Behaviour: Direct, Indirect, or Both?", International Journal of Business and Management, 2015. Publication	<1 %
27	kb.psu.ac.th Internet Source	<1 %

Exclude quotes Off  
Exclude bibliography Off

Exclude matches Off

## Appendix E

### Data of the research study

- A for Greenwash statements
- B for Green Skepticism statements
- C for Green Purchase Behaviour statements

Age	Gender	Degree Level	A 1	A 2	A 3	A 4	A 5	B 1	B 2	B 3	B 4	C 1	C 2	C 3	C 4
Above 40	Male	Graduate	5	5	5	5	3	5	5	5	5	5	5	5	5
25 - 32	Male	Undergraduate	3	3	3	3	4	3	3	3	3	3	3	3	3
33 - 40	Male	Graduate	3	3	3	2	3	3	3	3	2	3	3	3	2
25 - 32	Male	Undergraduate	4	4	4	4	4	4	4	4	4	4	4	4	4
33 - 40	Male	Graduate	3	3	4	3	2	3	3	4	3	3	3	4	3
25 - 32	Female	Graduate	4	4	4	4	4	4	4	4	4	4	4	4	4
17 - 24	Female	Graduate	4	4	3	4	4	4	4	3	4	4	4	3	4
25 - 32	Male	Graduate	3	3	3	4	4	3	3	3	4	3	3	3	4
17 - 24	Male	Graduate	3	3	4	3	4	3	3	4	3	3	3	4	3
25 - 32	Male	Graduate	2	2	1	1	2	2	2	1	1	2	2	1	1
25 - 32	Male	Graduate	2	1	2	1	2	2	1	2	1	2	1	2	1
17 - 24	Male	Graduate	2	2	3	3	4	2	2	3	3	2	2	3	3
25 - 32	Male	Graduate	3	3	3	3	3	3	3	3	3	3	3	3	3
25 - 32	Female	Undergraduate	3	3	4	3	3	3	3	4	3	3	3	4	3
25 - 32	Female	Graduate	2	1	2	3	3	2	1	2	3	2	1	2	3
17 - 24	Female	Graduate	4	3	4	5	4	4	3	4	5	4	3	4	5
25 - 32	Female	Graduate	2	2	2	2	5	2	2	2	2	2	2	2	2
17 - 24	Female	Undergraduate	3	3	3	3	3	3	3	3	3	3	3	3	3
17 - 24	Female	Undergraduate	2	2	4	4	4	2	2	4	4	2	2	4	4
25 - 32	Female	Graduate	3	2	4	4	4	3	2	4	4	3	2	4	4
17 - 24	Female	Graduate	3	3	2	4	4	3	3	2	4	3	3	2	4
25 - 32	Female	Graduate	4	3	3	2	3	4	3	3	2	4	3	3	2





25 - 32	Male	Graduate	4	4	4	4	4	4	4	4	4	4	4	4	4
25 - 32	Male	Undergraduate	2	1	3	4	4	2	1	3	4	2	1	3	4
Above 40	Male	Graduate	4	4	4	4	5	4	4	4	4	4	4	4	4
Above 40	Male	Graduate	2	2	2	1	3	2	2	2	1	2	2	2	1
Above 40	Male	Graduate	1	2	2	4	4	1	2	2	4	1	2	2	4
Above 40	Male	Graduate	5	4	5	4	4	5	4	5	4	5	4	5	4
17 - 24	Female	Undergraduate	4	5	3	2	4	4	5	3	2	4	5	3	2
17 - 24	Male	Undergraduate	2	2	2	3	3	2	2	2	3	2	2	2	3
17 - 24	Male	Undergraduate	1	3	2	3	5	1	3	2	3	1	3	2	3
17 - 24	Male	Undergraduate	1	5	3	2	1	1	5	3	2	1	5	3	2
17 - 24	Male	Undergraduate	3	2	4	3	1	3	2	4	3	3	2	4	3
25 - 32	Male	Undergraduate	3	2	2	3	2	3	2	2	3	3	2	2	3
17 - 24	Female	Undergraduate	3	2	2	4	3	3	2	2	4	3	2	2	4
17 - 24	Male	Undergraduate	3	2	4	5	3	3	2	4	5	3	2	4	5
17 - 24	Male	Undergraduate	3	2	4	4	3	3	2	4	4	3	2	4	4
17 - 24	Male	Undergraduate	3	2	2	3	3	3	2	2	3	3	2	2	3
17 - 24	Male	Undergraduate	3	3	4	3	3	3	3	4	3	3	3	4	3
17 - 24	Male	Undergraduate	3	2	2	4	4	3	2	2	4	3	2	2	4
17 - 24	Male	Undergraduate	3	2	1	1	1	3	2	1	1	3	2	1	1
17 - 24	Female	Undergraduate	3	4	4	3	3	3	4	4	3	3	4	4	3
17 - 24	Female	Undergraduate	3	3	4	4	3	3	3	4	4	3	3	4	4
17 - 24	Male	Undergraduate	4	4	2	4	2	4	4	2	4	4	4	2	4
17 - 24	Male	Undergraduate	2	3	2	3	2	2	3	2	3	2	3	2	3
17 - 24	Male	Undergraduate	4	3	4	4	3	4	3	4	4	4	3	4	4



17 - 24	Male	Undergraduate	4	3	4	4	4	4	4	3	4	4	4	3	4	4
17 - 24	Male	Undergraduate	4	4	4	4	4	4	4	4	4	4	4	4	4	4
17 - 24	Male	Undergraduate	4	4	5	4	4	4	4	5	4	4	4	4	5	4
17 - 24	Male	Undergraduate	5	4	3	4	4	5	4	3	4	5	4	3	4	
17 - 24	Male	Undergraduate	4	5	2	1	4	4	5	2	1	4	5	2	1	
17 - 24	Female	Undergraduate	4	4	5	1	5	4	4	5	1	4	4	5	1	
17 - 24	Female	Undergraduate	4	4	1	4	4	4	4	1	4	4	4	1	4	
17 - 24	Female	Undergraduate	4	4	2	4	5	4	4	2	4	4	4	2	4	
17 - 24	Male	Undergraduate	1	1	2	2	3	1	1	2	2	1	1	2	2	
17 - 24	Male	Undergraduate	4	5	3	4	3	4	5	3	4	4	5	3	4	
17 - 24	Male	Undergraduate	4	3	4	4	4	4	3	4	4	4	3	4	4	
17 - 24	Male	Undergraduate	4	3	4	4	3	4	3	4	4	4	3	4	4	
17 - 24	Male	Undergraduate	3	3	4	3	3	3	3	4	3	3	3	4	3	
17 - 24	Female	Undergraduate	2	2	1	2	3	2	2	1	2	2	2	1	2	
17 - 24	Male	Undergraduate	2	2	1	2	3	2	2	1	2	2	2	1	2	
17 - 24	Female	Undergraduate	2	2	2	3	2	2	2	2	3	2	2	2	3	
17 - 24	Male	Undergraduate	4	3	1	4	2	4	3	1	4	4	3	1	4	
17 - 24	Male	Undergraduate	2	3	1	4	2	2	3	1	4	2	3	1	4	
17 - 24	Male	Undergraduate	4	4	2	2	3	4	4	2	2	4	4	2	2	
25 - 32	Male	Undergraduate	1	1	2	3	3	1	1	2	3	1	1	2	3	
17 - 24	Male	Graduate	5	4	2	2	5	5	4	2	2	5	4	2	2	
17 - 24	Female	Undergraduate	4	2	3	4	1	4	2	3	4	4	2	3	4	
17 - 24	Male	Undergraduate	3	5	3	2	1	3	5	3	2	3	5	3	2	
17 - 24	Male	Undergraduate	3	4	2	3	1	3	4	2	3	3	4	2	3	

17 - 24	Female	Undergraduate	3	2	2	5	1	3	2	2	5	3	2	2	5
17 - 24	Female	Undergraduate	5	4	5	5	5	5	4	5	5	5	4	5	5
17 - 24	Female	Undergraduate	4	3	4	2	4	4	3	4	2	4	3	4	2
17 - 24	Female	Undergraduate	3	3	3	4	5	3	3	3	4	3	3	3	4
17 - 24	Male	Graduate	4	4	4	4	4	4	4	4	4	4	4	4	4
17 - 24	Female	Undergraduate	3	4	2	4	2	3	4	2	4	3	4	2	4
17 - 24	Male	Undergraduate	4	3	3	3	3	4	3	3	3	4	3	3	3
17 - 24	Female	Undergraduate	1	1	1	1	4	1	1	1	1	1	1	1	1
17 - 24	Female	Undergraduate	2	2	1	1	4	2	2	1	1	2	2	1	1
17 - 24	Male	Undergraduate	3	4	3	4	1	3	4	3	4	3	4	3	4
17 - 24	Male	Undergraduate	4	3	4	3	4	4	3	4	3	4	3	4	3
17 - 24	Male	Undergraduate	2	2	2	2	2	2	2	2	2	2	2	2	2
17 - 24	Male	Undergraduate	2	2	3	3	4	2	2	3	3	2	2	3	3
25 - 32	Female	Graduate	3	2	4	5	2	3	2	4	5	3	2	4	5
17 - 24	Male	Undergraduate	3	2	2	5	5	3	2	2	5	3	2	2	5
17 - 24	Male	Undergraduate	3	2	2	2	2	3	2	2	2	3	2	2	2
17 - 24	Male	Undergraduate	3	2	2	3	2	3	2	2	3	3	2	2	3
17 - 24	Male	Undergraduate	3	3	3	3	2	3	3	3	3	3	3	3	3
17 - 24	Male	Undergraduate	3	2	3	4	5	3	2	3	4	3	2	3	4
17 - 24	Male	Undergraduate	3	3	2	2	5	3	3	2	2	3	3	2	2
17 - 24	Male	Undergraduate	3	1	1	1	3	3	1	1	1	3	1	1	1
17 - 24	Male	Undergraduate	5	5	5	5	1	5	5	5	5	5	5	5	5
17 - 24	Male	Undergraduate	4	4	3	3	3	4	4	3	3	4	4	3	3
17 - 24	Male	Undergraduate	3	2	4	4	4	3	2	4	4	3	2	4	4

17 - 24	Male	Undergraduate	4	3	4	5	4	4	3	4	5	4	3	4	5
25 - 32	Male	Undergraduate	3	4	2	4	3	3	4	2	4	3	4	2	4
17 - 24	Male	Undergraduate	4	3	4	4	4	4	3	4	4	4	3	4	4
17 - 24	Female	Undergraduate	4	4	3	3	3	4	4	3	3	4	4	3	3
17 - 24	Male	Undergraduate	1	2	2	3	3	1	2	2	3	1	2	2	3
17 - 24	Male	Undergraduate	4	3	4	1	4	4	3	4	1	4	3	4	1
17 - 24	Female	Undergraduate	1	3	2	2	1	1	3	2	2	1	3	2	2
17 - 24	Male	Undergraduate	2	3	4	3	3	2	3	4	3	2	3	4	3
17 - 24	Male	Undergraduate	2	4	4	2	2	2	4	4	2	2	4	4	2
17 - 24	Female	Undergraduate	3	3	4	4	3	3	3	4	4	3	3	4	4
17 - 24	Female	Undergraduate	2	3	2	2	4	2	3	2	2	2	3	2	2
17 - 24	Female	Undergraduate	3	3	2	2	2	3	3	2	2	3	3	2	2
17 - 24	Female	Undergraduate	3	3	2	3	4	3	3	2	3	3	3	2	3
17 - 24	Female	Undergraduate	1	1	1	1	1	1	1	1	1	1	1	1	1
17 - 24	Male	Undergraduate	4	3	3	5	4	4	3	3	5	4	3	3	5
17 - 24	Male	Undergraduate	2	1	2	3	3	2	1	2	3	2	1	2	3
17 - 24	Male	Undergraduate	4	5	3	4	5	4	5	3	4	4	5	3	4
17 - 24	Female	Undergraduate	2	3	3	4	5	2	3	3	4	2	3	3	4
17 - 24	Female	Undergraduate	4	3	3	1	4	4	3	3	1	4	3	3	1
17 - 24	Female	Undergraduate	2	3	3	2	2	2	3	3	2	2	3	3	2
17 - 24	Male	Undergraduate	3	4	2	2	4	3	4	2	2	3	4	2	2
17 - 24	Female	Undergraduate	1	4	1	1	2	1	4	1	1	1	4	1	1
17 - 24	Female	Undergraduate	4	3	3	4	3	4	3	3	4	4	3	3	4

25 - 32	Female	Graduate	4	3	3	4	3	4	3	3	4	4	3	3	4
17 - 24	Female	Undergraduate	2	2	2	3	4	2	2	2	3	2	2	2	3
17 - 24	Female	Undergraduate	3	5	4	4	4	3	5	4	4	3	5	4	4
25 - 32	Female	Undergraduate	3	2	2	3	3	3	2	2	3	3	2	2	3
17 - 24	Female	Undergraduate	4	4	2	3	3	4	4	2	3	4	4	2	3
17 - 24	Male	Undergraduate	2	3	1	1	4	2	3	1	1	2	3	1	1
17 - 24	Female	Undergraduate	3	4	4	4	5	3	4	4	4	3	4	4	4
17 - 24	Female	Undergraduate	1	1	1	1	1	1	1	1	1	1	1	1	1
17 - 24	Female	Undergraduate	3	2	2	2	4	3	2	2	2	3	2	2	2
17 - 24	Female	Undergraduate	1	2	3	1	1	1	2	3	1	1	2	3	1
17 - 24	Male	Undergraduate	3	3	3	2	4	3	3	3	2	3	3	3	2
17 - 24	Female	Undergraduate	3	4	5	3	5	3	4	5	3	3	4	5	3
17 - 24	Female	Undergraduate	4	3	3	4	3	4	3	3	4	4	3	3	4
17 - 24	Male	Undergraduate	3	3	3	3	1	3	3	3	3	3	3	3	3
17 - 24	Male	Undergraduate	4	3	3	4	3	4	3	3	4	4	3	3	4
17 - 24	Male	Undergraduate	2	3	4	3	2	2	3	4	3	2	3	4	3
17 - 24	Male	Undergraduate	3	4	3	3	3	3	4	3	3	3	4	3	3
25 - 32	Male	Undergraduate	3	2	3	1	2	3	2	3	1	3	2	3	1
17 - 24	Male	Undergraduate	4	4	2	4	3	4	4	2	4	4	4	2	4
17 - 24	Male	Undergraduate	3	1	2	5	2	3	1	2	5	3	1	2	5
17 - 24	Male	Undergraduate	3	4	4	4	3	3	4	4	4	3	4	4	4
17 - 24	Male	Undergraduate	1	2	2	2	3	1	2	2	2	1	2	2	2
17 - 24	Male	Undergraduate	1	1	1	1	2	1	1	1	1	1	1	1	1

17 - 24	Female	Graduate	1	5	4	4	3	1	5	4	4	1	5	4	4
17 - 24	Female	Undergraduate	1	1	1	1	5	1	1	1	1	1	1	1	1
17 - 24	Female	Undergraduate	1	2	1	1	5	1	2	1	1	1	2	1	1
17 - 24	Female	Undergraduate	1	1	1	1	5	1	1	1	1	1	1	1	1
33 - 40	Female	Undergraduate	4	4	4	4	4	4	4	4	4	4	4	4	4
25 - 32	Female	Graduate	3	3	3	3	3	3	3	3	3	3	3	3	3
25 - 32	Male	Graduate	3	5	3	5	5	3	5	3	5	3	5	3	5
25 - 32	Female	Graduate	2	2	2	2	2	2	2	2	2	2	2	2	2
33 - 40	Male	Graduate	5	5	5	5	3	5	5	5	5	5	5	5	5
25 - 32	Male	Undergraduate	3	3	3	3	4	3	3	3	3	3	3	3	3
33 - 40	Male	Graduate	3	3	3	2	3	3	3	3	2	3	3	3	2
25 - 32	Male	Undergraduate	4	4	4	4	4	4	4	4	4	4	4	4	4
33 - 40	Male	Graduate	3	3	4	3	2	3	3	4	3	3	3	4	3
25 - 32	Female	Graduate	4	4	4	4	4	4	4	4	4	4	4	4	4
17 - 24	Female	Graduate	4	4	3	4	4	4	4	3	4	4	4	3	4
25 - 32	Male	Graduate	3	3	3	4	4	3	3	3	4	3	3	3	4
17 - 24	Male	Graduate	3	3	4	3	4	3	3	4	3	3	3	4	3
25 - 32	Male	Graduate	2	2	1	1	2	2	2	1	1	2	2	1	1
25 - 32	Male	Graduate	2	1	2	1	2	2	1	2	1	2	1	2	1
17 - 24	Male	Graduate	2	2	3	3	4	2	2	3	3	2	2	3	3
25 - 32	Male	Graduate	3	3	3	3	3	3	3	3	3	3	3	3	3
25 - 32	Female	Undergraduate	3	3	4	3	3	3	3	4	3	3	3	4	3
25 - 32	Female	Graduate	2	1	2	3	3	2	1	2	3	2	1	2	3
17 - 24	Female	Graduate	4	3	4	5	4	4	3	4	5	4	3	4	5
25 - 32	Female	Graduate	2	2	2	2	5	2	2	2	2	2	2	2	2
17 - 24	Female	Undergraduate	3	3	3	3	3	3	3	3	3	3	3	3	3
17 - 24	Female	Undergraduate	2	2	4	4	4	2	2	4	4	2	2	4	4
25 - 32	Female	Graduate	3	2	4	4	4	3	2	4	4	3	2	4	4

17 - 24	Female	Graduate	3	3	2	4	4	3	3	2	4	3	3	2	4
25 - 32	Female	Graduate	4	3	3	2	3	4	3	3	2	4	3	3	2
33 - 40	Male	Graduate	4	4	2	3	2	4	4	2	3	4	4	2	3
25 - 32	Female	Graduate	3	2	2	4	3	3	2	2	4	3	2	2	4
33 - 40	Male	Graduate	2	2	3	4	4	2	2	3	4	2	2	3	4
33 - 40	Female	Graduate	4	4	3	2	2	4	4	3	2	4	4	3	2
33 - 40	Female	Undergraduate	3	3	3	3	4	3	3	3	3	3	3	3	3
25 - 32	Male	Undergraduate	4	4	4	4	4	4	4	4	4	4	4	4	4
25 - 32	Male	Undergraduate	4	4	4	4	4	4	4	4	4	4	4	4	4
17 - 24	Male	Graduate	4	4	3	3	4	4	4	3	3	4	4	3	3
33 - 40	Female	Undergraduate	4	4	3	3	3	4	4	3	3	4	4	3	3
17 - 24	Male	Graduate	3	3	4	4	4	3	3	4	4	3	3	4	4
25 - 32	Male	Graduate	3	3	3	4	4	3	3	3	4	3	3	3	4
25 - 32	Female	Graduate	3	3	3	3	3	3	3	3	3	3	3	3	3
25 - 32	Female	Graduate	2	4	3	4	4	2	4	3	4	2	4	3	4
25 - 32	Female	Graduate	3	3	3	3	3	3	3	3	3	3	3	3	3
25 - 32	Female	Graduate	4	4	4	4	4	4	4	4	4	4	4	4	4
25 - 32	Female	Graduate	4	3	3	3	4	4	3	3	3	4	3	3	3
25 - 32	Female	Graduate	1	2	2	2	4	1	2	2	2	1	2	2	2
33 - 40	Female	Graduate	4	3	2	2	4	4	3	2	2	4	3	2	2
33 - 40	Female	Graduate	4	4	4	4	4	4	4	4	4	4	4	4	4
25 - 32	Male	Graduate	4	4	3	3	4	4	4	3	3	4	4	3	3
33 - 40	Female	Graduate	4	4	4	4	4	4	4	4	4	4	4	4	4
33 - 40	Male	Graduate	4	4	4	2	4	4	4	4	2	4	4	4	2
17 - 24	Female	Undergraduate	4	4	4	4	4	4	4	4	4	4	4	4	4
33 - 40	Female	Graduate	5	3	3	3	4	5	3	3	3	5	3	3	3
33 - 40	Female	Graduate	3	3	2	2	3	3	3	2	2	3	3	2	2



25 - 32	Male	Undergraduate	4	4	4	4	4	4	4	4	4	4	4	4	4
25 - 32	Male	Graduate	4	4	4	4	4	4	4	4	4	4	4	4	4
25 - 32	Male	Undergraduate	2	1	3	4	4	2	1	3	4	2	1	3	4
25 - 32	Male	Graduate	4	4	4	4	5	4	4	4	4	4	4	4	4
25 - 32	Male	Graduate	2	2	2	1	3	2	2	2	1	2	2	2	1
25 - 32	Male	Graduate	1	2	2	4	4	1	2	2	4	1	2	2	4
25 - 32	Male	Graduate	5	4	5	4	4	5	4	5	4	5	4	5	4
17 - 24	Female	Undergraduate	4	5	3	2	4	4	5	3	2	4	5	3	2
17 - 24	Male	Undergraduate	2	2	2	3	3	2	2	2	3	2	2	2	3
17 - 24	Male	Undergraduate	1	3	2	3	5	1	3	2	3	1	3	2	3
17 - 24	Male	Undergraduate	1	5	3	2	1	1	5	3	2	1	5	3	2
17 - 24	Male	Undergraduate	3	2	4	3	1	3	2	4	3	3	2	4	3
25 - 32	Male	Undergraduate	3	2	2	3	2	3	2	2	3	3	2	2	3
17 - 24	Female	Undergraduate	3	2	2	4	3	3	2	2	4	3	2	2	4
17 - 24	Male	Undergraduate	3	2	4	5	3	3	2	4	5	3	2	4	5
17 - 24	Male	Undergraduate	3	2	4	4	3	3	2	4	4	3	2	4	4
17 - 24	Male	Undergraduate	3	2	2	3	3	3	2	2	3	3	2	2	3
17 - 24	Male	Undergraduate	3	3	4	3	3	3	3	4	3	3	3	4	3
17 - 24	Male	Undergraduate	3	2	2	4	4	3	2	2	4	3	2	2	4
17 - 24	Male	Undergraduate	3	2	1	1	1	3	2	1	1	3	2	1	1
17 - 24	Female	Undergraduate	3	4	4	3	3	3	4	4	3	3	4	4	3
17 - 24	Female	Undergraduate	3	3	4	4	3	3	3	4	4	3	3	4	4
17 - 24	Male	Undergraduate	4	4	2	4	2	4	4	2	4	4	4	2	4
17 - 24	Male	Undergraduate	2	3	2	3	2	2	3	2	3	2	3	2	3
17 - 24	Male	Undergraduate	4	3	4	4	3	4	3	4	4	4	3	4	4
17 - 24	Male	Undergraduate	4	3	4	4	4	4	3	4	4	4	3	4	4



17 - 24	Male	Undergraduate	4	4	4	4	4	4	4	4	4	4	4	4	4
17 - 24	Male	Undergraduate	4	4	5	4	4	4	4	5	4	4	4	5	4
17 - 24	Male	Undergraduate	5	4	3	4	4	5	4	3	4	5	4	3	4
17 - 24	Male	Undergraduate	4	5	2	1	4	4	5	2	1	4	5	2	1
17 - 24	Female	Undergraduate	4	4	5	1	5	4	4	5	1	4	4	5	1
17 - 24	Female	Undergraduate	4	4	1	4	4	4	4	1	4	4	4	1	4
17 - 24	Female	Undergraduate	4	4	2	4	5	4	4	2	4	4	4	2	4
17 - 24	Male	Undergraduate	1	1	2	2	3	1	1	2	2	1	1	2	2
17 - 24	Male	Undergraduate	4	5	3	4	3	4	5	3	4	4	5	3	4
17 - 24	Male	Undergraduate	4	3	4	4	4	4	3	4	4	4	3	4	4
17 - 24	Male	Undergraduate	4	3	4	4	3	4	3	4	4	4	3	4	4
17 - 24	Male	Undergraduate	3	3	4	3	3	3	3	4	3	3	3	4	3
17 - 24	Female	Undergraduate	2	2	1	2	3	2	2	1	2	2	2	1	2
17 - 24	Male	Undergraduate	2	2	1	2	3	2	2	1	2	2	2	1	2
17 - 24	Female	Undergraduate	2	2	2	3	2	2	2	2	3	2	2	2	3
17 - 24	Male	Undergraduate	4	3	1	4	2	4	3	1	4	4	3	1	4
17 - 24	Male	Undergraduate	2	3	1	4	2	2	3	1	4	2	3	1	4
17 - 24	Male	Undergraduate	4	4	2	2	3	4	4	2	2	4	4	2	2
25 - 32	Male	Undergraduate	1	1	2	3	3	1	1	2	3	1	1	2	3
17 - 24	Male	Graduate	5	4	2	2	5	5	4	2	2	5	4	2	2
17 - 24	Female	Undergraduate	4	2	3	4	1	4	2	3	4	4	2	3	4
17 - 24	Male	Undergraduate	3	5	3	2	1	3	5	3	2	3	5	3	2
17 - 24	Male	Undergraduate	3	4	2	3	1	3	4	2	3	3	4	2	3
17 - 24	Female	Undergraduate	3	2	2	5	1	3	2	2	5	3	2	2	5

17 - 24	Female	Undergraduate	5	4	5	5	5	5	5	4	5	5	5	4	5	5
17 - 24	Female	Undergraduate	4	3	4	2	4	4	3	4	2	4	3	4	3	2
17 - 24	Female	Undergraduate	3	3	3	4	5	3	3	3	4	3	3	3	3	4
17 - 24	Male	Graduate	4	4	4	4	4	4	4	4	4	4	4	4	4	4
17 - 24	Female	Undergraduate	3	4	2	4	2	3	4	2	4	3	4	2	4	4
17 - 24	Male	Undergraduate	4	3	3	3	3	4	3	3	3	4	3	3	3	3
17 - 24	Female	Undergraduate	1	1	1	1	4	1	1	1	1	1	1	1	1	1
17 - 24	Female	Undergraduate	2	2	1	1	4	2	2	1	1	2	2	1	1	1
17 - 24	Male	Undergraduate	3	4	3	4	1	3	4	3	4	3	4	3	4	4
17 - 24	Male	Undergraduate	4	3	4	3	4	4	3	4	3	4	3	4	3	3
17 - 24	Male	Undergraduate	2	2	2	2	2	2	2	2	2	2	2	2	2	2
17 - 24	Male	Undergraduate	2	2	3	3	4	2	2	3	3	2	2	3	3	3
25 - 32	Female	Graduate	3	2	4	5	2	3	2	4	5	3	2	4	5	5
17 - 24	Male	Undergraduate	3	2	2	5	5	3	2	2	5	3	2	2	5	5
17 - 24	Male	Undergraduate	3	2	2	2	2	3	2	2	2	3	2	2	2	2
17 - 24	Male	Undergraduate	3	2	2	3	2	3	2	2	3	3	2	2	3	3
17 - 24	Male	Undergraduate	3	3	3	3	2	3	3	3	3	3	3	3	3	3
17 - 24	Male	Undergraduate	3	2	3	4	5	3	2	3	4	3	2	3	4	4
17 - 24	Male	Undergraduate	3	3	2	2	5	3	3	2	2	3	3	2	2	2
17 - 24	Male	Undergraduate	3	1	1	1	3	3	1	1	1	3	1	1	1	1
17 - 24	Male	Undergraduate	5	5	5	5	1	5	5	5	5	5	5	5	5	5
17 - 24	Male	Undergraduate	4	4	3	3	3	4	4	3	3	4	4	3	3	3
17 - 24	Male	Undergraduate	3	2	4	4	4	3	2	4	4	3	2	4	4	4
17 - 24	Male	Undergraduate	4	3	4	5	4	4	3	4	5	4	3	4	5	5

25 - 32	Male	Undergraduate	3	4	2	4	3	3	4	2	4	3	4	2	4
17 - 24	Male	Undergraduate	4	3	4	4	4	4	3	4	4	4	3	4	4
17 - 24	Female	Undergraduate	4	4	3	3	3	4	4	3	3	4	4	3	3
17 - 24	Male	Undergraduate	1	2	2	3	3	1	2	2	3	1	2	2	3
17 - 24	Male	Undergraduate	4	3	4	1	4	4	3	4	1	4	3	4	1
17 - 24	Female	Undergraduate	1	3	2	2	1	1	3	2	2	1	3	2	2
17 - 24	Male	Undergraduate	2	3	4	3	3	2	3	4	3	2	3	4	3
17 - 24	Male	Undergraduate	2	4	4	2	2	2	4	4	2	2	4	4	2
17 - 24	Female	Undergraduate	3	3	4	4	3	3	3	4	4	3	3	4	4
17 - 24	Female	Undergraduate	2	3	2	2	4	2	3	2	2	2	3	2	2
17 - 24	Female	Undergraduate	3	3	2	2	2	3	3	2	2	3	3	2	2
17 - 24	Female	Undergraduate	3	3	2	3	4	3	3	2	3	3	3	2	3
17 - 24	Female	Undergraduate	1	1	1	1	1	1	1	1	1	1	1	1	1
17 - 24	Male	Undergraduate	4	3	3	5	4	4	3	3	5	4	3	3	5
17 - 24	Male	Undergraduate	2	1	2	3	3	2	1	2	3	2	1	2	3
17 - 24	Male	Undergraduate	4	5	3	4	5	4	5	3	4	4	5	3	4
17 - 24	Female	Undergraduate	2	3	3	4	5	2	3	3	4	2	3	3	4
17 - 24	Female	Undergraduate	4	3	3	1	4	4	3	3	1	4	3	3	1
17 - 24	Female	Undergraduate	2	3	3	2	2	2	3	3	2	2	3	3	2
17 - 24	Male	Undergraduate	3	4	2	2	4	3	4	2	2	3	4	2	2
17 - 24	Female	Undergraduate	1	4	1	1	2	1	4	1	1	1	4	1	1
17 - 24	Female	Undergraduate	4	3	3	4	3	4	3	3	4	4	3	3	4
25 - 32	Female	Graduate	4	3	3	4	3	4	3	3	4	4	3	3	4

17 - 24	Female	Undergraduate	2	2	2	3	4	2	2	2	3	2	2	2	3
17 - 24	Female	Undergraduate	3	5	4	4	4	3	5	4	4	3	5	4	4
25 - 32	Female	Undergraduate	3	2	2	3	3	3	2	2	3	3	2	2	3
17 - 24	Female	Undergraduate	4	4	2	3	3	4	4	2	3	4	4	2	3
17 - 24	Male	Undergraduate	2	3	1	1	4	2	3	1	1	2	3	1	1
17 - 24	Female	Undergraduate	3	4	4	4	5	3	4	4	4	3	4	4	4
17 - 24	Female	Undergraduate	1	1	1	1	1	1	1	1	1	1	1	1	1
17 - 24	Female	Undergraduate	3	2	2	2	4	3	2	2	2	3	2	2	2
17 - 24	Female	Undergraduate	1	2	3	1	1	1	2	3	1	1	2	3	1
17 - 24	Male	Undergraduate	3	3	3	2	4	3	3	3	2	3	3	3	2
17 - 24	Female	Undergraduate	3	4	5	3	5	3	4	5	3	3	4	5	3
17 - 24	Female	Undergraduate	4	3	3	4	3	4	3	3	4	4	3	3	4
17 - 24	Male	Undergraduate	3	3	3	3	1	3	3	3	3	3	3	3	3
17 - 24	Male	Undergraduate	4	3	3	4	3	4	3	3	4	4	3	3	4
17 - 24	Male	Undergraduate	2	3	4	3	2	2	3	4	3	2	3	4	3
17 - 24	Male	Undergraduate	3	4	3	3	3	3	4	3	3	3	4	3	3
25 - 32	Male	Undergraduate	3	2	3	1	2	3	2	3	1	3	2	3	1
17 - 24	Male	Undergraduate	4	4	2	4	3	4	4	2	4	4	4	2	4
17 - 24	Male	Undergraduate	3	1	2	5	2	3	1	2	5	3	1	2	5
17 - 24	Male	Undergraduate	3	4	4	4	3	3	4	4	4	3	4	4	4
17 - 24	Male	Undergraduate	1	2	2	2	3	1	2	2	2	1	2	2	2
17 - 24	Male	Undergraduate	1	1	1	1	2	1	1	1	1	1	1	1	1
17 - 24	Female	Graduate	1	5	4	4	3	1	5	4	4	1	5	4	4



