

GREEN ADVERTISING CREDIBILITY AND THE LINK BETWEEN WILLINGNESS-TO-PAY AND GREEN CONSUMPTION

ANGELE FARRUGIA

20MSMM032

A Dissertation presented to the Faculty of Economics, Management and Accountancy in part fulfilment of the requirement for the MSc. in Strategic Management and Digital Marketing at the University of Malta.

L-Università ta' Malta

University of Malta Library – Electronic Thesis & Dissertations (ETD) Repository

The copyright of this thesis/dissertation belongs to the author. The author's rights in respect of this work are as defined by the Copyright Act (Chapter 415) of the Laws of Malta or as modified by any successive legislation.

Users may access this full-text thesis/dissertation and can make use of the information contained in accordance with the Copyright Act provided that the author must be properly acknowledged. Further distribution or reproduction in any format is prohibited without the prior permission of the copyright holder.

Abstract

This dissertation measured the willingness-to-pay of potential consumers to assess how green advertising, in particular eco-labels, manifests green consumption. This research study also intended to identify the consumer demographic most inclined to pay a premium for green products in the Malta.

A quantitative research methodology was adopted. The data was gathered through the use of surveys, which were assigned to persons who met the eligible criteria. A randomised control trial was utilised to measure the WTP value.

The main findings deduce that people residing in Malta are much more receptive to a product with an eco-label than the control counterpart (without an eco-label) of that same product. The WTP for the former was found to be higher than that of the latter. For this reason, the researcher concludes that individuals are willing to pay more for a product that is marketed as green. Regarding green advertising credibility, the participants only somewhat trusted that the green product is indeed environmentally friendly. Most of the respondents were not able to associate the eco-label to the EU issuing body, deeming the eco-label even more ineffective.

This dissertation outlines certain benefits for public and private interests in carrying out marketing campaigns aiming at increasing consumers' knowledge on the subject matter. The research study also highlights some shortcomings in the eco-label design. The consumer demographic that is most likely to pay a premium for a green product in Malta was found to be female, reasonably educated, middle-aged, earns a higher-than-average income, and resides in the Southern Harbour region of Malta.

Acknowledgements

I would like to express my sincere appreciation to my tutor Ms Kora Muscat, who through her knowledge and understanding, was consistently present in providing guidance and pushed me forward with enthusiasm throughout this dissertation.

I wish to also express my deepest gratitude to my parents, Marilyn and Karmenu, and my brother Joseph for their involvement in the process, and constant love and support.

Table of Contents

1 Introduction 1

1.1 Introduction 1

1.2 Key Definitions 1

1.2.1 Being Green 1

1.2.2 Green Advertising 1

1.3 Relevance of study 2

1.4 Objectives of Study 3

1.5 Overview of Dissertation 4

2 Literature Review 5

2.1 Introduction 5

2.2 Being green – A change in lifestyle 5

2.3 Green Advertising and Scepticism 8

2.4 Who buys green? 13

2.5 Eco-labels and their effectiveness 16

2.6 Willingness-to-Pay 17

2.6.1 WTP and Green Consumption 17

2.6.2 How effective is WTP? 19

2.6.3 Measuring WTP 20

2.7 Hypotheses 25

3 Methodology 27

3.1 Introduction 27
3.2 Research Strategy 27
3.2.1 Deductive vs Inductive approach 27
3.3 Research Design 28
3.4 Methodological Choice 28
3.5 Sampling Method 29
3.5.1 Instrument 31
3.6 Survey Content 32
3.6.1 The Eco-Label 36
3.7 Data Collection 37
3.8 Pilot Study 38
3.9 Setting 38
3.10 Ethical guidelines 39
3.11 Data Analysis 39
4 Results 40
4.1 Demographics 40
4.1.1 Gender 40
4.1.2 Age 40
4.1.3 Region 41
4.1.4 Education 42
4.1.5 Income 42

4.2 Environmentalism 43
4.2.1 Extent of Purchasing Environmentally Friendly Products 44
4.3 Eco-Label Perception 45
4.4 Green Advertising Credibility 50
4.4.1 Purchase Consideration 50
4.5 Willingness-to-Pay 52
4.5.1 WTP Changes 54
4.6 Important factors when purchasing 55
4.7 Perception of products 57
4.7.1 Appealing 58
4.7.2 High-Quality 60
4.7.3 Informative 61
4.8 Differences between demographic characteristics on WTP 62
4.9 Demographic analysis 69
4.9.1 Gender 69
4.9.2 Age Distribution 69
4.9.3 Regions 70
4.9.4 Education 71
4.10 Conclusion 71
5 Discussion 72
5.1 Objectives of the Study 72

5.2 Willingness-to-Pay 73
5.2.1 Summary of Findings 73
5.2.2 Interpretations and Implications 74
5.3 Environmentalism 76
5.3.1 Summary of Findings and Interpretations 76
5.3.2 Implications 77
5.4 Demographic Profiling for Green Consumers 78
5.4.1 Summary of Findings 78
5.4.2 Implications 79
5.5 Conclusion 81
6 Conclusion 82
6.1 Limitations of the Study 84
6.2 Areas for further research 85
7 References 86
Appendix A - Survey 102
Appendix B - Results 115

List of Figures

Figure 1 - Classification framework for methods to measure WTP (Hahsler, 2015) . 20
Figure 2 - Eco-label considered 36
Figure 3 - European eco-labels for shampoos 36
Figure 4 - Gender Distribution 40
Figure 5 - Age of Participants 41
Figure 6 - Locality of Residence 42
Figure 7 - Education Level 42
Figure 8 - Income Brackets 43
Figure 9 - Degrees of Environmentalism 43
Figure 10 - Environmentally-Friendly Alternatives Purchases 44
Figure 11 - Environmentally-Friendly Shampoos Purchases 45
Figure 12 - Eco-Label Familiarity 46
Figure 13 - Eco-Label Likability 47
Figure 14 - Eco-Label Trust 47
Figure 15 - Word Cloud for Label Meaning (created on monkeylearn.com) 50
Figure 16 - Purchase Consideration 51
Figure 17 - WTP among the two tests 53
Figure 18 - Revised WTP Values 55
Figure 19 - Important Purchasing Factors 56
Figure 20 - Product Attributes 58
Figure 21 - Appealing Perception 59
Figure 22 – High-Quality Perception 61
Figure 23 - Informative Perception 62
Figure 24 - Shapiro-Wilk Test 115

Figure 25 - Non-Parametric Tests..... 115

List of Tables

Table 1 - Eco-Label Trust 46
Table 2 - Label Trust vs Label Familiarity 48
Table 3 - Label Trust vs Label Likability 48
Table 4 - Chi-Square Tests 49
Table 5 - Purchase Consideration 51
Table 6 - WTP among the two tests 52
Table 7 - Revising WTP 54
Table 8 - Important Purchasing Factors 56
Table 9 - Appealing Perception 59
Table 10 - High Quality Perception 60
Table 11 - Informative Perception 61
Table 12 - WTP and Gender 63
Table 13 - WTP and Age 64
Table 14 - WTP and Income 65
Table 15 - WTP and Residence Area 67
Table 16 - WTP and Education Level 67
Table 17 - WTP and Environmentalism 68
Table 18 - Age Distribution 70
Table 19 - Residence Area Distribution 70
Table 20 - Education Levels Distribution 71

List of Abbreviations

Willingness-to-Pay	WTP
European Union	EU
United States	U.S.
Values And Lifestyle Surveys	VALS
Becker, DeGroot and Marshak	BDM
National Statistics Office	NSO
Statistical Package for the Social Sciences	SPSS

1 Introduction

1.1 Introduction

Deviating from products that are harmful to the environment, and instead opting for ethical consumption, is currently a hot topic around the western world. Many politicians, policymakers and environmental conservationists are advocating the latter as a way to reduce the detrimental repercussions mainstream consumption has on the environment. The market for environmentally friendly products has grown tremendously over the last few years (Mazar and Zhong, 2010). Furthermore, an international agreement on environmental regulation has been introduced, aimed at increasing temperature levels in order to tackle climate change, although its implementation is debatable (Zhong *et al.*, 2010).

1.2 Key Definitions

1.2.1 Being Green

The term *being green* in this dissertation refers to the constant effort to reduce the environmental impact, be it big or small (Krafft, 2014). It relates to the consumption of products with positive environmentally friendly or *green* implications, defined as products which do not contaminate the earth or exhaust raw materials or can be reprocessed or preserved (Shamdasani, Chon-Lin and Richmond, 1993).

1.2.2 Green Advertising

Green advertising, as defined by Banerjee *et al.*, (1995), is still earnestly relevant:

Green advertising is any ad that meets one or more of the following criteria:

1. Directly or indirectly *addresses the relationship between a product/service and the* ecological *environment.*
2. *Promotes a green lifestyle with or without highlighting a product/service.*
3. *Presents a corporate image of environmental responsibility*.

1.3 Relevance of study

The topic of sustainability is especially relevant in Malta, seeing the current challenges faced by a rapidly increasing population and improvements to be made in numerous public and private sectors alike. One particular challenge is that of air quality (Population and Migration Statistics Unit, 2018). Eurostat published that in 2017, Malta had the highest share of the population reporting that they have been exposed to pollution and other environmental issues, out of all European Union Countries (*14% of EU citizens report exposure to pollution*, 2019). With these challenges, arises the opportunity for the nation to create a sustainable positive change. To this end, this research aims to promote our relationship with the market in terms of environmental responsibility.

Green consumption research in the Maltese context is still somewhat limited. This dissertation attempts to aid bridging that gap, and moreover strives to conclude

whether green advertising, particularly eco-labelling, is useful in this regard, by measuring willingness-to-pay (hereafter referred to as WTP).

1.4 Objectives of Study

As indicated in the title, the objective of this research is to analyse green advertising credibility and more specifically, its effect on the relationship between consumer WTP and green consumption, with a particular focus on the local scene. The researcher aims to find out the general perception of local consumers on green advertising, and whether their consumption attitudes reflect this. The author intends to answer the research questions hereunder.

In the Maltese islands:

1. How does the consumers' WTP change for a green product compared to a generic product, if at all?
2. Are consumers sceptical of the green advert, and if so, which of its aspects contribute to this?
3. Which consumer demographic is willing to pay the most for a product marketed as green?

These questions, in a nutshell, cover the intended objective and contribution of this research, and by delving deeper into demographic stratifications - how green adverts affect demographic groups of the Maltese population more than others - can also be analysed. The ultimate objective of this study is to provide guidance towards further

advancements in marketing strategies for green products, with the intention of helping create a shift towards a sustainable lifestyle.

1.5 Overview of Dissertation

The following chapter includes the literature review, which builds on the themes and research objectives introduced in this chapter by providing further research on the subject matter, and the hypotheses are formed; the next chapter is the methodology which underlines the experimental process adopted by the researcher; the results chapter follows, which presents the findings gathered from the survey distributed; Chapter 5, the discussion, builds on the results gathered by providing analysis and a thorough appraisal; finally, Chapter 6 – conclusion - summarises the research carried out and makes suggestions for future research work.

2 Literature Review

2.1 Introduction

This chapter gives a comprehensive assessment of the presently available literature regarding green advertising, willingness-to-pay and how they are linked together through green consumption. First, following an introduction on the general shift in lifestyle towards more green products in the last three decades, a brief account of the history of green advertising is given. Afterwards, the author refers to noteworthy results on scepticism and where the current trend is headed. Subsequently, a section on the demographics of green consumers is presented, as well as the fundamentals of eco-labelling. The author then introduces an in-depth review of WTP, distinctively its relation to green consumption, a brief of how it is used as a measurement and the different ways to measure it. Finally, the hypotheses for this dissertation are outlined.

2.2 Being green – A change in lifestyle

In the last decades, the general public has become more aware of its environmental impacts, especially in its consumption (Yazdanifard and Mercy, 2011). In response, firms have increased their supply of products with eco-labels, marketing them as green. As a consequence, multiple researchers have studied the WTP for a variety of products with environmental or ecological associations (Arce Salazar and Oerlemans, 2016). The main findings of these studies suggest that a substantial amount of the sample groups analysed have a relatively greater WTP, for green goods (Cason and Gangadharan, 2002; Loureiro, McCluskey and Mittelhammer, 2002; Bjørner, Hansen

and Russell, 2004; Loureiro and Hine, 2004; Hopkins and Roche, 2019). Commodities positioned as environmentally appealing include recycled products (made out of paper and plastic), as well as even dolphin-safe tuna (Banerjee et al., 1995).

We are frequently faced with the choice to pursue a green lifestyle. Only by choosing to ride the bicycle instead of taking the car to work is a choice which reflects a degree of greenness. A weaker attempt than riding the bicycle is that of buying a smaller car to reduce pollution. Another example would be to choose a detergent in recyclable packaging over a standard one which is not. All of these actions embody a degree of environmental impact, but such a decision is a dynamic, ongoing assessment of ecological impactfulness and a change in behaviour in the consumer's buying decision. An individual has a choice of which product to consume. As Banerjee *et al.,* (1995) critically stated, being green is not a dualistic position. For that reason, according to the degree of greenness, naturalists tend to distinguish between profound environmentalist decisions and shallow ones (Naess, 1973).

Through the use of various strategies, like green advertising, corporations attempt to demonstrate to their customers that they are concerned about environmental matters, with the market for green products estimated at $845 billion in 2015 (Leonidou and Skarmeas, 2017). Furthermore, a simple Google search on March 11, 2020, with the keywords "green products" and "environmental products" produced more than 13.3 billion results, combined. Indeed, green products have virtually penetrated almost every existing market, ranging from energy, technology and architecture to household items such as laundry detergents, kitchen cleaning products, hand soaps, and more

relevantly deodorants, shampoos and kinds of toothpaste (Elliott, 2013; Leonidou and Skarmeas, 2017).

The notion of green marketing first started in the 1970s, when an economic downturn had hit due to increased oil prices and emphasis was put on the pressing environmental issues (Haytko and Matulich, 2008). Following this, people learned the detrimental effect their actions had on the natural world and that it is indeed finite. Corporations attempted to capitalise on this movement through green advertising (Krafft, 2014) and in fact, the number of green messages in advertising has distinctively risen since its inception (Easterling, Kenworthy and Nemzoff, 1996). The green movement fervour relatively slowed down in western markets in the 1990s, in which green brands generally did not experience growth (Elliott, 2013). During the 2000s, a growing concern resurfaced, following the vastly broadcasted discoveries on climate change and due to the matter of an all-time high fuel price (Haytko and Matulich, 2008; Elliott, 2013).

Most consumers nowadays seek social responsibility from companies as an added benefit in their products. According to Krafft (2014), a functional and attractive brand is not enough anymore. As a result, companies started to respond by changing the way they advertise. Green advertising is a company's way of communicating the environmental benefits brought about through the consumption of their product or service compared to other competing products (Mo, Liu and Liu, 2018). Furthermore, consumers usually assume that products which have environmental appeal as their competitive edge are reliable, and generally, they give attention to the explicit

information made by producers who are authentic in their green efforts (Leonidou et al., 2011).

Nevertheless, one can view these claims simultaneously as dubious or even deceptive (Carlson et al., 1993; Bickart and Ruth, 2012; Sheehan and Atkinson, 2012). Especially when the claims are unclear, misleading or exaggerated or left out all together, the corporation tends to come off as untruthful (Gaski and Etzel, 1986). Criticism of green advertising addresses the consequences of such claims on the growing consumer scepticism (Leonidou et al., 2011; Matthes, Wonneberger and Schmuck, 2014).

2.3 Green Advertising and Scepticism

In recent years, the growing field of being green has inspired some companies to start taking steps towards changing their environmental responsibilities. For instance, The Body Shop has chosen to stop testing on animals (Robinson and Wood, 2018). Other green brands include Whole Foods, Burt's Bees and Seventh Generation (Elliott, 2013). Common phrases used to market products as green include all-natural, chemical-free, organic, biodegradable, and recyclable, among others. Further, Carlson et al., (1993) effectively categorised such claims which suggest an environmental appeal, through the use of a matrix in an attempt to act as a guide in classifying any shortcomings green advertising may have. This matrix, in a nutshell, identifies the claim type, be it product or image among others, against varying degrees of deception or misleading information. Given that some brands, in contrast, make

claims which are either half-truths or even false advertise. 27 years later, this matrix is still relevant.

The growth of *green scepticism* is mostly due to both the increasing occurrences of corporate wrongdoings (e.g., Lehman Brothers, Enron, Arthur Andersen) and reckless ecological behaviour (e.g., Union Carbide gas leak, TEPCO nuclear disaster, Exxon Valdez and BP oil spills) (Leonidou and Skarmeas, 2017). Indeed, green scepticism can be objectively defined as the customers' inclination to suspect the eco-friendliness appeal or the environmental functions of products marketed as green (Mohr, Eroğlu and Ellen, 1998; Obermiller, Spangenberg and MacLachlan, 2005).

Furthermore, an individual environmental term in advertising tends to be perceived as too vague when no further information is provided, leaving consumers unable to understand the real intent of such claims (Newell, Goldsmith and Banzhaf, 1998; Stokes, 2007). As might be expected, consumers' credibility towards these claims is low. On the other hand, if an advert is very technical, it tends to be regarded as complex and might risk being ignored completely (Do Paço and Reis, 2012). Additionally, international regulations to ensure transparency with regards to environmental claims and standards concerning sustainability are still insufficient (Laufer, 2003; Chen and Chang, 2013). Among all this consumer cynicism and while cases of greenwashing have escalated, demand for green products and services is still on the rise, especially in recent years (TerraChoice, 2009; Delmas and Burbano, 2011a).

The growing market for green products is surprising, given the increasing number of customers who: are doubting the motivations corporations have for being environmentally-friendly; are unsure about green products' benefits, and; are questionining their green appeal and performance (Leonidou and Skarmeas, 2017). The broad literature is relatively straightforward on concluding that consumers are eventually becoming increasingly both distrustful of green claims and remarkably confused by green advertising (Carlson et al., 1993; Grove and Kangun, 1993; Iyer and Banerjee, 1993; Shrum, McCarty and Lowrey, 1995). This scepticism in customers has created an obstacle for truly green brands to communicate their sustainable efforts. In turn, some companies are disheartened to invest in the practice of producing green products. Correspondingly, in the case that customers abandon their trust in green claims through advertising and labels, companies may stop attempting the practice of green advertising. Sceptical customers may indeed unintentionally hinder the development of green products (Do Paço and Reis, 2012).

In contrast to the latter, other studies demonstrate that consumers may tend to believe misleading environmental messages in advertising in their aspiration to preserve the environment (Yi, 1990; Newell, Goldsmith and Banzhaf, 1998; Khandelwal and Bajpai, 2011). This finding is interesting as customers themselves believe that functional green ads impact others more than they do themselves (Mo, Liu and Liu, 2018).

That being the case, Chen and Chang (2012) recommended that organisations should create products with both green attributes and high-value qualities to attract customers. Additionally, the authors stated that improving consumers' internalised

worth of green goods may diminish their customer scepticism. Nevertheless, by merely existing, consumer scepticism, along with recognised deception leads to a general detrimental effect on both the company's credibility and perceived organisational performance (Newell, Goldsmith and Banzhaf, 1998; Vanhamme and Grobben, 2009). These effects are particularly amplified in the context of environmental disasters and other large-scale environmental incidents that are attributed to a company.

Producing an advert that is perceived as misleading could prove to be a costly setback for companies. Consequently, testing consumers' attitudinal responses and purchase intentions in this regard would prove to be useful, especially for the companies attempting authentic green marketing. In contrast, there exists greenwashing, the practice of using misleading or exaggerated environmental claims. The expression *greenwashing* was introduced by Carlson et al. (1993) to describe advertising in which communication relating to the environment is either misleading, insignificant, or even false. Frequently, this term is used in a broad sense, and it has grown into varied definitions. Delmas and Burbano (2011) attempted to explain it as the junction of the following corporate actions: weak environmental behaviour and optimistic marketing on environmental behaviour. Despite the multiple explanations available, they all suggest that it is wrongdoing on the company's behalf.

A typical example of greenwashing is that of Shell in 2007. This company had claimed that it reuses carbon dioxide waste as nutrition for crops. It was later found that only 0.35 per cent of Shell's total waste was being used as such (Krafft, 2014). After this,

consumers started to question the company's claims. As consumer become more aware of the threat of greenwashing they become more sceptical and concerned of purchasing green products (Halverson, 2018).

Existing literature on scepticism attempts to tackle its drivers, deterrents and effects. This existing literature allows for further research and expansion on scepticism concerning the link between WTP and green consumption.

2.4 Who buys green?

The late 1980s gave rise to development in literature, dedicated to identifying the population's demographics of the green market. The questions: 'Who is the green consumer, and what are his/her motives?' have been long sought-after. Researchers have used different evaluations to precisely find out which incorporated values and attitudes best correlate with green consumption. Consumer research has given a significant amount of attention towards designing personas of the consumer segments, formed on the replies from Values And Lifestyle Surveys (VALS) asking questions relating to self-concepts and personal preferences (Zukin and Maguire, 2004). Correspondingly, Diamantopoulos *et al.* (2003) found that although socio-demographics may seem enough to describe green consumers, it is of restricted explanatory value on its own, making the VALS-based approach more effective.

For the most part, literature is inclined to consider the consumption of green products as a distinct kind of consumption. Green consumption is consistently defined and rooted in a consumer's knowledge, costs/benefits or beliefs (Elliott, 2013). Green consumers - supposing this term includes all individuals who partake in buying goods and services that are marketed as green – are difficult to pin down to a detailed profile. A portion of customers are inclined to green household products, and another portion has a preference for hybrid cars, while others prefer organic and local foods. Although these products may seem varied, they are all understood as *green*. Each of the different products brings into play different motivations, tastes, and preferences.

One finding shows that the demographic group that an environmentally-friendly product tends to attract is that of female, relatively young and highly-educated individuals (Park, 2018). Although, in contrast, other papers show no evidence of differences in gender among a customer's preference for green goods (Ferri and Pedrini, 2018). To this end, this may also be attributable to the location, such that people living in varied areas of the same city or nation occupy different mentalities on the issue, but not necessarily different enough to produce significantly different results. The variance by location may also be noticeable locally.

A significant amount of literature has attempted to find what motivates the behaviour in consumers to buy a green product as opposed to its non-green counterpart (among others, Straughan and Roberts, 1999; D'Souza *et al.*, 2007; Finisterra Do Paço, Barata Raposo and Filho, 2009; Young *et al.*, 2010). This research has been heavily involved in being committed to both promoting pro-environmental principles and supporting customers – mostly through improving consumer information using eco-labelling, marketing campaigns and educative events. In learning what determines this behaviour, puts us in a better position to target and possibly influence this segmented market. Psychology-based studies, however, tend to argue that green consumption is decided at the individual level, rooted in logical perceptions of costs and benefits, regardless of how fellow customers act. In this case, brands should be concerned with which systems of information and encouragement would get the mass market to shift its purchasing preferences to be more sustainable.

Authors with a consumer-behaviour background tend to use models which theorise a great extent of awareness regarding making a decision, and emphasising the customer during the point of buying (Peattie, 2010). This does not necessarily mean that studies in favour of consumers behaving pro-environment have fallen short of advancing more than simple, logical decision models. For example, an amended version of the A-B-C (attitude-behaviour-context) theory of pro-environmental behaviour assumes that the expected value for attitudes on behaviour relies on features of the setting, notably the efforts, cost, or nuisance involved in deciding to alter one's behaviour (Guagnano, Stern and Dietz, 1995; Stern, 1999). Multiple authors refer to the intricate motives backing green consumption and have tried to comprehend consumer behaviour as to expertise, attitudes, beliefs, and situational variables, aiming to measure customer intent while assuming that customer behaviour is functional in the sense of satisfying needs and wants (Moisander, 2007). It may be noted that specific attitudinal and socio-demographic attributes are associated with green consumption, without deducing that this quantifies to a solidified *green consumer* identification that subjects either identify as or; subconsciously act as but are not fully aware. For this reason, this dissertation will research, and test participants based on a particular household product used by the majority of the population – a bottle of shampoo.

2.5 Eco-labels and their effectiveness

Environmental labelling, i.e. the labelling of green goods, became known as an effective means to supply readily available knowledge (Lohr, 1998). The degree to which, however, an environmental label is useful in green consumption growth is vastly based on its perceived trustworthiness. One way of ensuring that a label is trustworthy is through government engagement or to a lesser degree third-party approval. This kind of green labelling, called eco-labelling, is concerned with third-party environment label strategies, as opposed to others, which supposedly makes the label more credible since a third-party evaluation of the corporation's green quality level is involved. This independent party can either be a state-organisation or a private service.

Such labels are only allowed to be reproduced on a product, when the independent organisation, usually the government, deems the products as having surpassed a certain set threshold. For this reason, the advantage of an eco-label is that it acts as an authentication symbolising the ecological safety a product incorporates (Hassan and Vandermerwe, 1994). According to Muska (1999), customers tend to find these labels more credible, than say a producer's environmental label, due to their impartial nature.

A body of literature has researched consumer confidence concerning the role of government. The main conclusion from this research is that interestingly consumers favour non-government institutions over government ones when inquired to choose

between hypothetical incidents (Gertz, 2005). Based on simulated experiences, this research may have been subject to shortcomings in the accuracy of data generation. For this reason, this dissertation will assess consumer trustworthiness or lack thereof, with an existing environmental label to create an understanding of the elements that come into play regarding consumer credibility in eco-labelling.

2.6 Willingness-to-Pay

2.6.1 WTP and Green Consumption

Empirical evidence has used WTP for green products significantly, as a means to measure whether there is an effect of green advertising credibility. A significant amount of literature has studied the relationship between intrinsic motivations and the WTP a premium for green products. In many instances, the results of these papers are inconsistent with each other. In general, results show that environmental concern positively affects consumers' WTP for products with positive environmental implications (Huang, Kan and Fu, 1999; Bang *et al.*, 2000; Loureiro, McCluskey and Mittelhammer, 2002b; Moon and Balasubramanian, 2003). In the particular case of Vlosky, Ozanne and Fontenot (1999) where consumers were asked whether they are willing to pay a higher price for ecologically-certified timber products than their uncertified counterparts, the conclusion is that in the U.S., customers having high confidence in environmental certification were indeed willing to do so. Similarly, D'Souza (2000) assessed the effect of *Dolphin-Safe* eco-labels on branded tuna cans

in Australia. The existence of this particular eco-label was found to have positively impacted customers on their preferred branded tuna.

When examining the significance of EU-approved labels on white goods (regarding energy use) in comparison with various other product features, Sammer and Wüstenhagen (2006) confirm that the energy-label positively affected customers' purchasing decisions. More significantly, the results indicate that the WTP for the costs surpasses the predicted cost saved from the product over its lifetime. Various studies on WTP indicate that as consumer awareness towards green marketing grows, customers choose to pay a premium for green goods (Khandelwal and Bajpai, 2011; Rahbar and Wahid, 2011). Nevertheless, given the generalisation of this result, it might not be representative of the population as a whole and therefore needs to be tested further, depending on the particular population and set of conditions.

Furthermore, these types of studies indeed vary significantly with location and customer base. Anderson & Hansen (2004) carried out a test in two Home Depots in Oregon in which they presented two identical plywood products, with the only difference being an eco-label on one of them. The two locations gave significantly different results. Each store's unique pool of customers may have also had an effect on these results. The study done by Moon *et al.* (2002) reinforces this finding, which shows that Berlin residents have differences in their WTP for foods manufactured in sustainable ways across regions in the city.

Despite its recent growth, the literature on the link between WTP and green consumption is still growing. This therefore, provides the opportunity to investigate the matter from an economic point of view. In the local context, such research is even less in-depth and therefore, implies a higher degree of uncertainty. This research aims to shed light on this gap in knowledge.

Green products are in general more costly than their standard counterpart since the production process itself tends to be more costly for green products (D'Souza *et al.*, 2006; Okada and Mais, 2010; Royne, Levy and Martinez, 2011; Sønderskov and Daugbjerg, 2011). D'Souza *et al.* (2007) found that those consumers that are willing to pay a higher price for products with an eco-label tend to be hesitant to compromise on product quality. In general, when it is easier for consumer to distinguish a green attribute in a product, they are more willing to pay a premium for it, as found my Moon and Balasubramanian, (2003); Abdul-Muhmin, (2007). These studies however both assume that the buyer is entirely knowledgeable of the product's attributes and costs. The findings suggest that the central driver of WTP is that of perceived subconscious repercussions, which in itself is heavily influenced by former behaviour.

2.6.2 How effective is WTP?

Several hypotheses have been made throughout the years, attempting to explain the behavioural intention behind environmentally friendly actions, including WTP a higher price for green alternatives. Thus, the question is, how effective is the measure of WTP in accounting for the differences between an individuals' intention and the

consumption behaviour to follow? Intention reflects determined plans of action and requires the presence of particular conditions, such as available green product substitutes. Furthermore, the majority of theoretical frameworks draw on attitude formation theories, more specifically these include The Theory of Planned Behaviour (Ajzen, 1985, 1991; Kok and Siero, 1985; Bang *et al.*, 2000).

2.6.3 Measuring WTP

Various methods exist when measuring WTP, each bearing its pros and cons. Figure 1 presents an explicit classification of these methods (Hahsler, 2015).

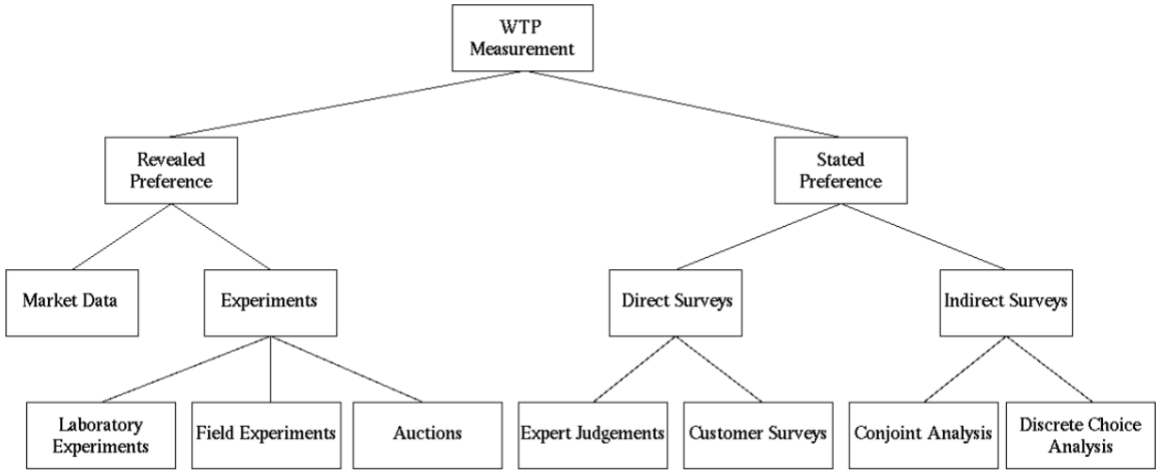


Figure 1 - Classification framework for methods to measure WTP (Hahsler, 2015)

Estimation methods are considered the highest level of measuring WTP by various scholars (Marbeau, 1987; Balderjahn, 2003). The classification framework in Figure 1,

however, distinguishes the highest-level techniques as either using questionnaire methods or if they are built on real or hypothetical price-response information.

One way of obtaining revealed preference information is through market data analysis. Often information on sales is utilised to calculate an approximate function of price-response for WTP estimation which can be subdivided into panel data, reported on an individual level by consumers and store scanner data, which uses the aggregate generated sales information. This way of measuring WTP depends on the assumption that past information can forecast future market behaviour. This indicates that the commodity used for future estimation has only been exposed to minor variations in the product profile, which can prove challenging when examining past sales information. On the other hand, however, this method can be beneficial in analysing actual transactions that took place.

Furthermore, another way of obtaining generated information is through experiments. This category is further subdivided into laboratory experiments and field experiments. The former is usually a simulation in which participants are given an amount of money, and they are then asked whether they wish to spend it on a particular product or set of products, and if so, what is their WTP. A benefit of this method is that data is collected relatively fast. This method may incur some biases as a disadvantage, mainly being the participants, aware of the situation presented might become more logical then they would have in the actual situation at a supermarket, for instance. This drawback can bring about decreased external validity (Hanna *et al.*, 1995). A related

second bias may occur if the respondents either do not take real possession of the product “purchased” or do not spend their own money (Nagle and Holden, 2002).

Contrastingly, field tests, given their real-life purchasing nature, involve higher expenses to carry out, and since much observation is involved, they also tend to last longer which are both considered significant cons (Gourley and Nagle, 1988; Urban and Hauser, 1993). An additional category of auctions is included because they are deemed a significant type of experiment, which can be implemented either through simulation or as a field experiment. Auctions are useful in finding customers' assessment of a commodity or brand, and thus can be utilised to uncover customers' estimates to better-expected pricing decisions. Incentives may be used in auctions to bring out the actual WTP, as suggested by Wertenbroch and Skiera, (2002). These incentives may either take the form of bidding or in what is known as the BDM procedure. The former tends to confuse subjects on the bidding strategy and there may be the influence of the overbidding phenomenon (Hahsler, 2015). With regards to the BDM mechanism, subjects understand it quite quickly, and the bias of overbidding is less frequent than in some auctions (Wertenbroch and Skiera, 2002). Furthermore, a similar approach to auctioning exists to measure WTP, and this is the reverse-pricing or a method in which individuals select their prices (Chernev, 2003; Spann, Skiera and Schäfers, 2004). This mechanism is not adaptable for incentives, as opposed to the previous auction and the BDM mechanism.

Mainly, revealed preference methods obtain data from reactions to prices. Although proven to be highly valid, this method is sometimes avoided because of time or resource limitations.

On the other hand, there also exists the standard method of surveys which falls under the category of stated preference (Louviere *et al.*, 2000). The use of this type of testing is mainly associated with new or rebranded products, and in instances when there are time limitations. Surveys are further sub-divided into direct and indirect. With the former, questionnaire subjects are required to say their WTP for a specific product.

Direct surveys involve two subcategories, these being expert judgements and customer surveys. The former is the more reliable and popular method, which is mainly because expert judgements are feasible in a market with few consumers. Often, critics of this method express how it has low validity and so, although overused, is sometimes avoided by researchers. Moreover, perception of this method is that it is more reliable than direct surveys, in which subjects are questioned to state the price they are willing to pay for a particular product. The method of direct surveys incurs several drawbacks and is discouraged by a few of authors.

In contrast, indirect surveys provide a type of approach which ranks prices for various commodities, so that an estimation of the stated preferred WTP is obtained. Furthermore, this data collection method is split into the conjoint analysis, which utilises variations of the features of a product, and discrete choice analysis,

respectively. The latter asks participants to decide between presented product ideas (Uncles, Ben-Akiva and Lerman, 1987).

Multiple authors have attempted to compare the effectiveness of the methods, in measuring WTP. Each mechanism has its distinct characteristics which can be useful for a particular study but hindering for another. By going through all the methods, one can make an informed decision on which one to choose.

2.7 Hypotheses

The hypothesis, to begin with, develops from a body of literature suggesting that people have a higher WTP for a product associated with a green cause, compared to a regular product.

- H1: Respondents in the experimental test will choose to pay more than those in the control test, as defined in section 3.6.

Secondly, several studies demonstrate that gender, age, and education level all play a role in whether a product advertised as green would be appealing. Concerning gender, evidence indicates that women are more likely to be willing to pay a premium than men (Ross, Patterson and Stutts, 1992; Elliott, 2013; Park, 2018). As for age, findings vary on whether this influences one's inclination towards products which are advertised as having ethical implications (Taylor and Boasson, 2014; Ferri and Pedrini, 2018). The mixed outcomes from previous research also apply to both education and income. (Elliott, 2013; Taylor and Boasson, 2014; Ferri and Pedrini, 2018).

- H2: Individuals who are female, relatively young, and highly educated are willing to pay more for the eco-labelled shampoo than any other demographic.

Finally, various research delves into credibility towards green advertising and how it is brought about. A vastly used theoretical framework, the Persuasion Knowledge Model,

is rooted in the idea that consumer beliefs about advertisers' tactics influence the consumers' persuasion. This can lead to increased scepticism (Chen and Chang, 2012). Various factors like the individual's environmental concern, brand familiarity and advert appeal are all considered in this model (Bickart and Ruth, 2012). This dissertation will focus on the latter, specifically eco-label likability.

- H3: Respondents who like the eco-label, believe it is more credible than those who do not.

3 Methodology

3.1 Introduction

This section will explore the research strategy employed in achieving the objective of this study, namely, to find the effect of green advertising credibility on consumer WTP and green consumption.

3.2 Research Strategy

The research strategy serves the purpose of linking the type of method collection chosen in the previous section with the analysis of the data, which will be presented later on in this chapter (Johannesson et al., 2014). This chapter, therefore, serves as a plan for the researcher to answer the predetermined research questions (Johannesson et al., 2014).

3.2.1 Deductive vs Inductive approach

The difference between a deductive and an inductive approach is that a deductive strategy begins with theory-driven hypotheses and research questions, where the author has to examine and collect data (Blaikie, 2009). On the other hand, an inductive strategy requires the researcher to start by observation until a pattern in the data is found and then a theory is developed (Blaikie, 2009).

For this research study, since the study seeks to discover what the link between customer WTP and green consumption is, the researcher opted for a deductive strategy.

3.3 Research Design

This dissertation uses a cross-sectional design approach, in which an online self-administered survey was utilised. The circumstances under which this research took place, mainly a global pandemic due to Covid-19, limited the researcher from being able to distribute the survey any other way. Furthermore, this unprecedented situation also influenced the sampling method used. For this reason, the survey was distributed through online social media channels like Facebook and Instagram.

3.4 Methodological Choice

The researcher considered the pros and cons of both qualitative and quantitative approaches to research before implementation. Despite the aspects of the qualitative research approach that provide more in-depth results, mainly through the direct contact with the participants, it is often argued that for research which needs a representation of the population, this approach is usually not sufficient. From this viewpoint, the more thorough and systematic method of data collection is, by comparison, the quantitative approach.

The number of respondents required for a quantitative sample is typically much larger than that for a qualitative study. The former approach provides a larger pool of respondents who can provide interpretative results, although the researcher would not be able to analyse the subject of interest as rigorously as in the latter approach.

Taking all of this into consideration, the researcher decided to employ a quantitative approach, more specifically using surveys. In doing so, the validity and the relevance of this particular study are both reinforced. Furthermore, to an attempt to include qualitative data, the researcher opted to include a few open-ended questions in the survey.

This research uses a between-subjects approach which ensures that different persons tested each existing condition. This kind of approach assures that only one degree of the tested independent variable is exposed to participants. For this reason, respondents were allotted randomly to the two conditions in this study.

3.5 Sampling Method

Initially, the sampling method used was planned to be random sampling. The respondents would have been selected at grocery stores, during different times and varied days, where they would have filled in the survey in-person. Since most people were on lockdown due to Covid-19 during the period of data collection, random sampling was quite challenging to implement. Therefore, instead, the researcher opted for convenience sampling.

Pros and cons of convenience sampling are varied. Utilising this kind of sampling restricts the generalisability of the findings (Banerjee et al., 1995). Given that, since this study aims to generate findings that best describe green advertising practices in Malta, the process of convenience sampling was not considered as a significant issue. Nonetheless, its shortcomings were mitigated by sharing the survey to various groups of people in an attempt to achieve a random sample.

The main advantage of convenience sampling is that it is easy to distribute, which benefit both time constraints and costs for the surveyor, in comparison to other methods. This method is disadvantageous in the fact that the sample collected was probably not representative of Malta's whole resident population, but rather subject to the limitations of social media, such that the whole population cannot be represented entirely (Mellon and Prosser, 2017). For this reason, in an attempt to overcome this limitation, the survey was posted in various social media groups which attract different socio-economic demographics. For instance, Facebook groups like 'YouSafe Żurrieq' and 'Behavioural Economics in Malta' were employed. Moreover, the survey was also shared among the human resources of three different organisations, as well as among the whole population of the University of Malta undergraduates.

A potential weakness was created when utilising a reusable link to share the survey. The link presented the opportunity for an individual respondent to answer more than once and thereby creating bias. Given that there was no financial incentive involved;

however, such an event is highly unlikely and having an easily shareable link aided a broader audience reach.

The target sample of this research was the adult population, aged above 18 years old, residing in Malta. This group of the population was chosen because it is assumed that these customers are accustomed to buying products, and they are also independent in deciding which products to consume (Rahbar and Wahid, 2011). The estimated size of the population is that of 403,735 (National Statistics Office (NSO), 2019) and a 95% confidence level was used. Online computer software was used to work out the size of the population. Thus, the gathered sample size of 301 was found to be sufficient. The margin of error was calculated to be that of ± 5.7%.

3.5.1 Instrument

The instrument though which data was gathered was surveys. Using surveys for quantitative research allows the researcher to efficiently and effectively carry out primary data collection, as stated by Ghauri, Grønhaug and Strange, (2020). It is argued that utilising surveys is preferable when having a wide array of respondents as they provide an appropriate means of gathering data and when suitably piloted, the degree of bias that the participants are made subject to will decline significantly (Milne, 1999).

Advantageously, online surveying eliminates the bias created during in-person testing when the researcher is present. Such foreseen benefit is known as the social

desirability bias, which is when the responses do not accurately reflect a person's true intentions, since they might feel judged into choosing a different answer, for instance, a higher price point. To mitigate this, the guiding discussion by the researcher remained objective and steered away from any influence. Through the use of surveys, participants were able to provide responses that are relatively simple to analyse, and the results are quite reliable.

3.6 Survey Content

At the beginning of the survey, an introductory message stating the title of the dissertation was presented. This message also included a brief explanation of the questions to follow. Here, the respondent was made aware that the responses are anonymous, and that confidentiality was maintained throughout. Furthermore, the possibility of contacting the researcher was made available had the participants come across any misunderstandings or inquiries. The eligibility criteria were also outlined for the respondents prior to any questions. The time taken to fill in the survey was around ten minutes.

The survey was made up of three mains sections, with a total of eighteen questions. The experimental test had an additional five questions which deal with the subjects' attitude towards the eco-label. The majority of the questions were close ended, with a total of three questions being open-ended (and five for the experimental test).

Furthermore, various techniques were utilised in the questions within the survey. Included are, multiple-choice questions, open-ended questions and Likert scale questions. A five-point Likert scale was used most frequently. The reason behind this is that since the study has a sample size greater than 100, better distributions of data were produced (Leung, 2011). The only instance in which a seven-point Likert scale was used was in the question analysing the general perception of the eco-label, which is not directly related to the main objective of this study. Moreover, Yes and No questions were deliberately not used to avoid the acquiescence response bias.

In the first part, the respondents found a few questions which ensured that their demographics matched with those required to qualify as a participant. Here, the researcher seeks to gather data on the age of the subjects. The last question asked in this section introduces an anchoring bias, which asked what one would buy with a hypothetical amount of money provided to them by the researcher. The reason for presenting such a question is to place the respondents in the frame of mind that they own the supposed €50. This way, a bias is created; however, it is assumed to be equal among all participants. The amount of €50 was chosen on the basis of it being an excessive amount of money to spend on one bottle of shampoo. Accordingly, participants were able to choose the WTP within a comfortable range.

The second part of the survey is split into two subsections in which WTP was measured. These two subsections contribute to the randomised control trial done for this study. The participants were randomly assigned to either one test or the other in an equal manner. This kind of testing was chosen so as the real effect of advertising

credibility on consumer WTP can be identified. Here, a narrative was given, stating how the participant is currently out of shampoo and needs to buy a bottle of shampoo. Moreover, at the supermarket, the user would encounter the given shampoo, priced at €7 (Park, 2018). The €7 mark creates a direct anchoring point, one in which customers face in real life when shopping where they can compare and contrast prices of similar products. This bias is beneficial in lessening variance. For this reason, the differences in the resulting variable occur because of the treatment and respondent individuality, and not of one's knowledge, or lack thereof, of the price (Park, 2018). For this reason, the bias introduced was not expected to hinder the results.

The image of shampoo bottle used in both tests was the same, except for the eco-label. The first test included a product, with neutral labelling - displaying no signs of environmental benefits associated with the product, henceforth called 'the control test'. The second one exhibited a product with environmentally friendly benefits attached presented on the label and therefore called 'the experimental test'. The questions in this section dealt with the issues of credibility in advertising which intended to unravel the respondent's green consumption attitudes. Since a different image is essentially used in both experimental conditions, the impact of the narrative cannot be isolated from the tangible qualities of the product, mainly the eco-label.

The product that featured in the tests was a bottle of shampoo. This product was selected since it is an object that most people use and buy quite frequently. It is also relatively homogenous, gender-neutral and not controlled by fashion or individual

taste. A bottle of shampoo is a low-cost product that involves little purchase risk. In addition, given its nature, it is rarely an object of status display.

In the second section of the survey, participants were asked to rate the levels at which they found the product appealing, informative and high-quality. These attributes are intended to capture differences, if any, created between the two products due to the label involved. This section also discerns how environmentally friendly each product is considered, and the experimental test delves further into the perception of the symbol.

The last part of the survey was focused on the respondents' demographic characteristics, including gender, education level and area of residence. The funnel sequence of the questions in general, systematically placed the ones dealing with demographics towards the end. This sequence was decided because the response rate for non-sensitive questions is higher when demographic questions are placed at the end of a survey (Savino, 2009).

In an attempt to maximise responses, the design of the survey was made concise and straightforward phrasing was used. Moreover, the layout was made to look appealing, aimed to improve focus; an attempt to ease the answering process as much as possible, while preserving the respondents' attention. Consequently, the number of responses gathered amounted to 301 in total.

The survey carried out can be found in Appendix A.

3.6.1 The Eco-Label

Several eco-labels were considered before the final decision was taken. Included are, the vegan logo, the recycling logo, as well as another designed by the researcher herself, as seen in Figure 2. The selected symbol ultimately was the European eco-label for soaps, shampoos and hair conditioners. Figure 3 shows the shampoo bottle presented in the experimental test.



Figure 2 - Eco-label considered



Figure 3 - European eco-label tested

The decision to place this symbol within the experimental test was based on previous research which involves established symbols suggesting eco-friendliness (Vlosky, Ozanne and Fontenot, 1999b; Loureiro, McCluskey and Mittelhammer, 2002b).

The chosen eco-label was bounded by the product in question and the Maltese islands in which the survey was distributed. These constrained the options available, and therefore the symbol recognised by the EU was chosen.

3.7 Data Collection

The survey was distributed to eligible participants. The subjects did not influence the course of data collection. For this reason, the responses gathered can be considered as independent, except for the questions gathering data on WTP.

Several additional shortcomings were eliminated, since the participants had the option to contact the researcher. Namely, that of not receiving the survey back fully answered, since it was distributed virtually. A limitation of online surveying is that participants tend to answer the questions spontaneously and without much thought. A pilot study was executed to lessen this shortcoming as much as possible.

3.8 Pilot Study

A pilot study is described as a short report of the study (Schaffner and Lindsey, 2000). Here, it was carried out to ascertain the reliability of the survey and for any potential misunderstandings to be amended before the final distribution.

The pilot study consisted of 10 participants who were chosen based on convenience. Some minor modifications were made in phrasing the questions, which were initially too technical. Furthermore, amendments were made to the narrative describing the respondent needing to buy the product, which was made to sound more urgent. This is because brand loyalty to people's current shampoo products was underestimated.

3.9 Setting

The setting in which the survey was answered - a global pandemic - may have a bearing on the findings of the study. The circumstances are probable to have also influenced how respondents answered the questions. This influence is especially relevant to the open-ended questions in which it was clear that the situation at the time greatly influenced responses.

The predicted result concerning WTP was that respondents would associate a higher price to the product with the added green benefit. Moreover, it is expected that the demographic who chooses to pay the most for the green product is female, relatively educated and lives in the Northern region of Malta.

3.10 Ethical guidelines

All ethical guidelines were adhered to in this study. Some of the questions asked related to demographics might be considered as sensitive since income, geographic residence and age were involved. For this reason, online surveys served as the better alternative of surveying since acquiring responses on such questions in-person tends to yield less open and honest answers.

3.11 Data Analysis

The data was collected using the online survey software of Qualtrics. The raw data was exported and then inputted into the IBM software SPSS Statistics. This software allows for the use of analytic techniques such as the plotting of tables and graphs, cross-tabulation and various statistical testing.

4 Results

4.1 Demographics

4.1.1 Gender

The majority of participants for this study were female, at 66.4%, whereas the percentage of males amounted to 33.6%. The survey also included the option of not disclosing one's gender; however, this was not chosen by any of the 301 respondents.

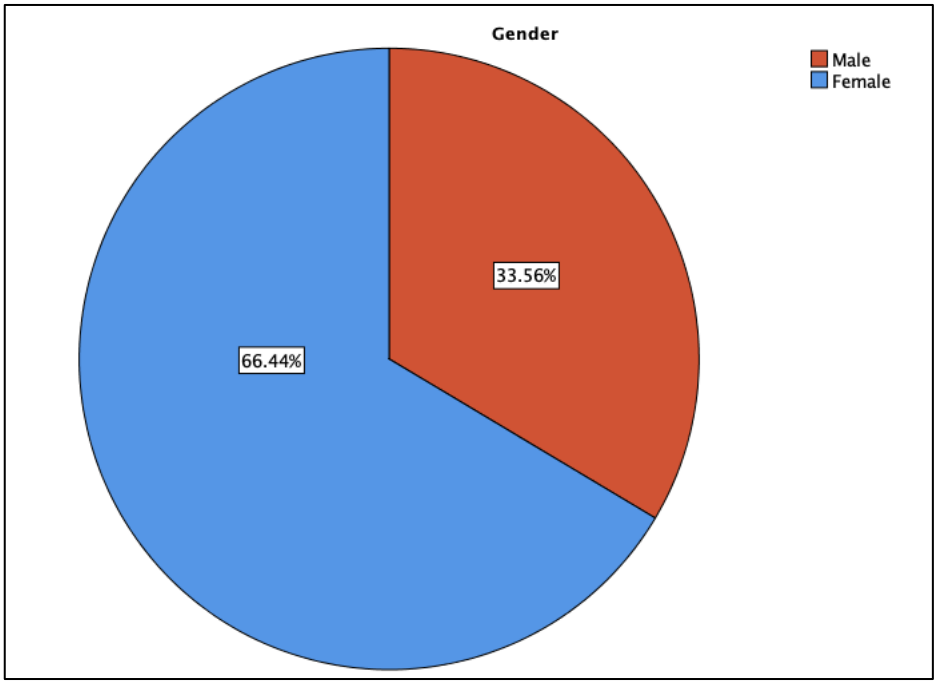


Figure 4 - Gender Distribution

4.1.2 Age

According to the eligibility criteria, the minimum age allowed for participation in the survey was 18. Therefore, the ages shown in Figure 5 start from a minimum age of 18. The majority (28.6%) of respondents were between the ages of 18-24 years old. This age group was followed by the age groups of 35-44, 25-34, 45-54, 55-64 and 65+, respectively.

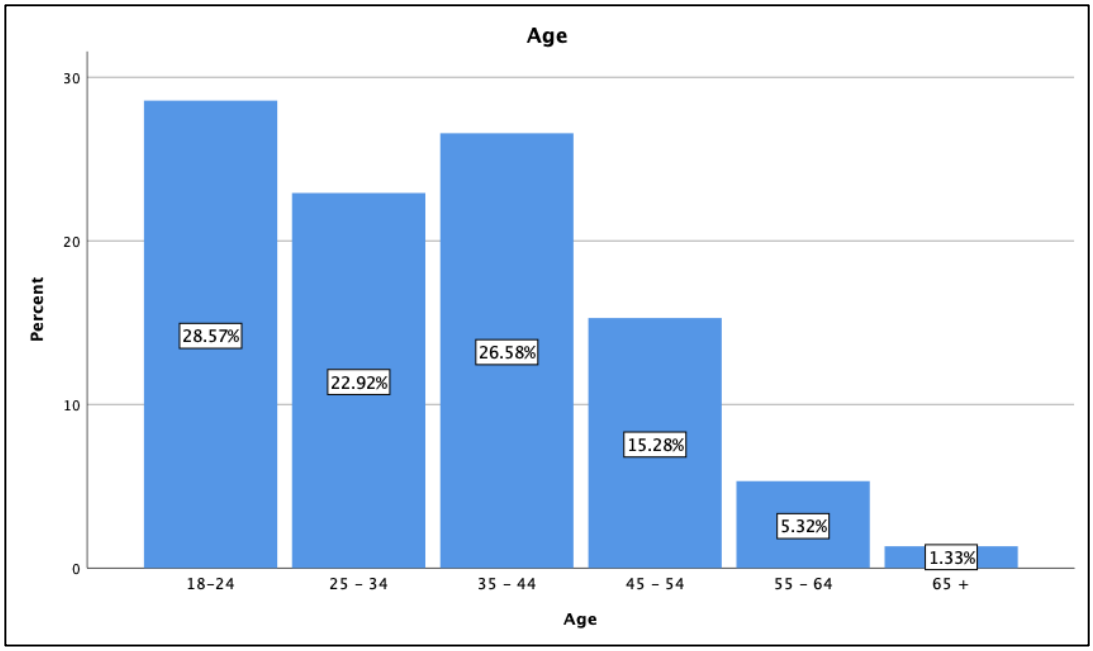


Figure 5 - Age of Participants

4.1.3 Region

The south-eastern region is the most popular region, with 40.9% of the respondents coming from that area. The northern harbour and western regions follow, whilst the minimum number of respondents is from the region of Gozo.

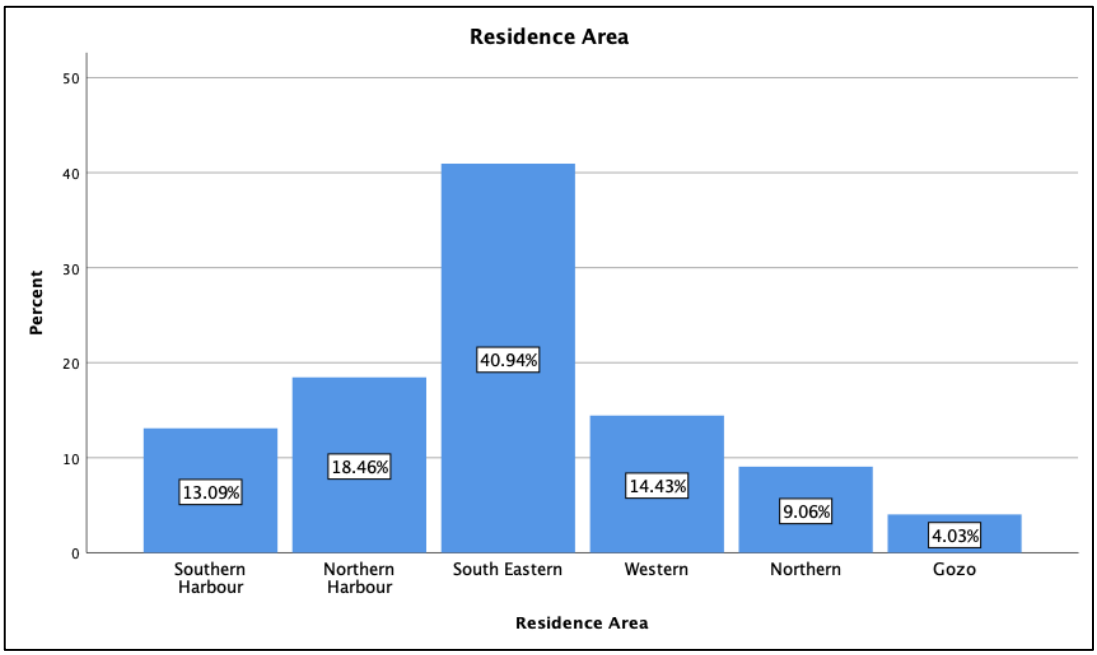


Figure 6 - Locality of Residence

4.1.4 Education

The highest level of education completed by participants is post-secondary in the majority of the cases, with participants having graduating with a bachelor's degree in second place.

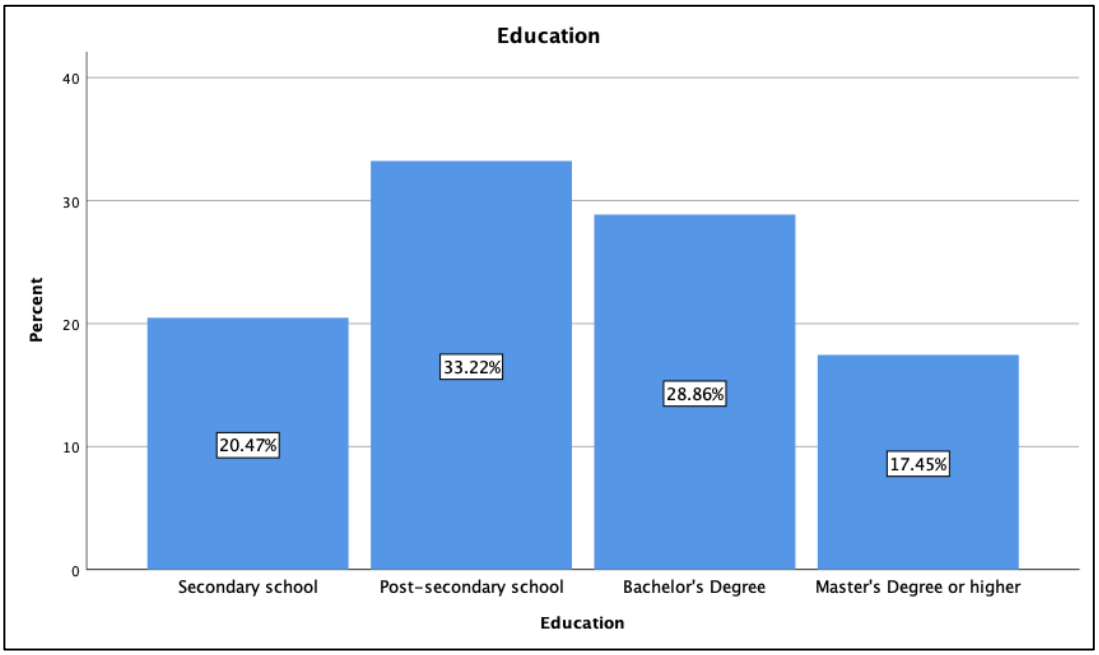


Figure 7 - Education Level

4.1.5 Income

The majority of the respondents fall under the annual income bracket of €10,000 to €19,000. Approximately equal amounts of participants, 22% each, earn less than €10,000 and between €20,000 and €30,000.

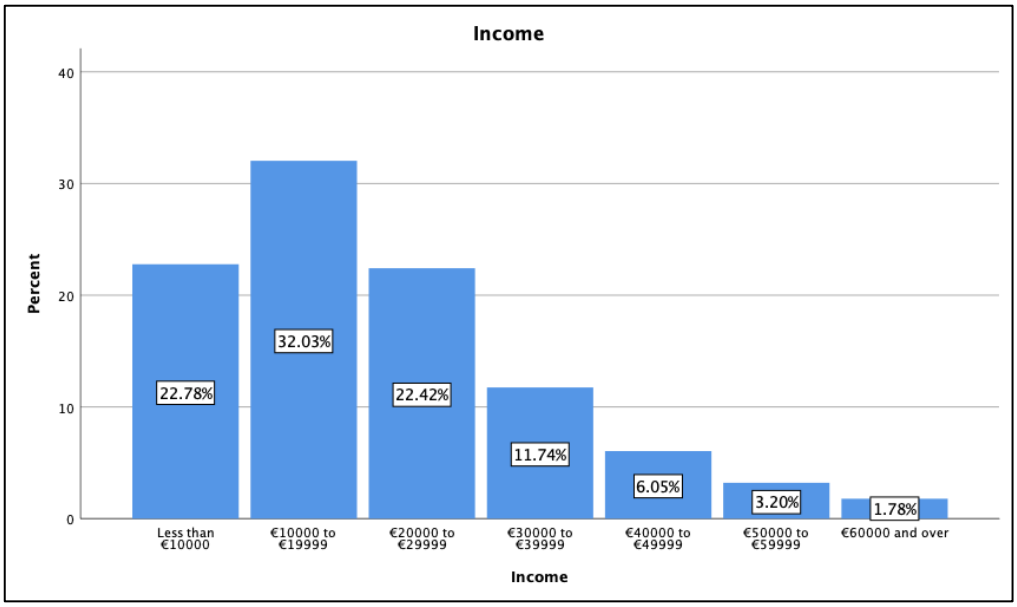


Figure 8 - Income Brackets

4.2 Environmentalism

The largest percentage of respondents identify as *somewhat* of an environmentalist, at 39.8%. On the other hand, the smallest percentage lies in *completely* and *not at all* options at 3.7% and 6.0% respectively.

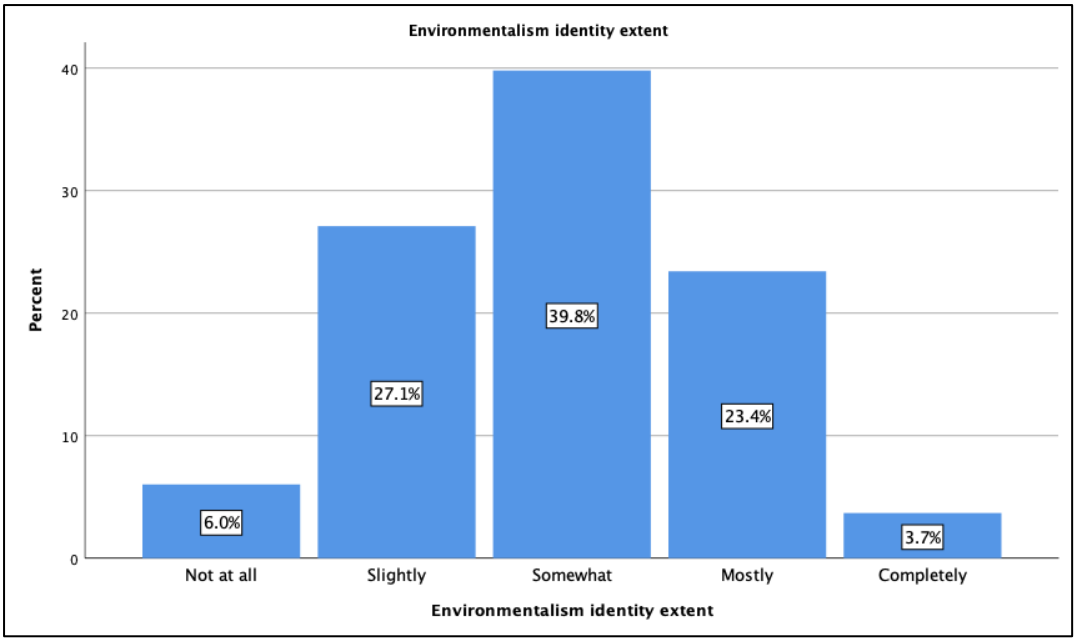


Figure 9 - Degrees of Environmentalism

4.2.1 Extent of Purchasing Environmentally Friendly Products

When asked how often they purchase products positioned as offering an environmental appeal, the largest percentage of participants (42.5%) responded *sometimes*, and the second largest group (21.4%) chose *often*, as seen in Figure 10.

Further, the respondents were asked how often they purchase products like shampoo or similar that are packaged as environmentally-friendly. As displayed in Figure 11, the two largest percentages were *sometimes* (35.6%) and *rarely ever* (27.2%).

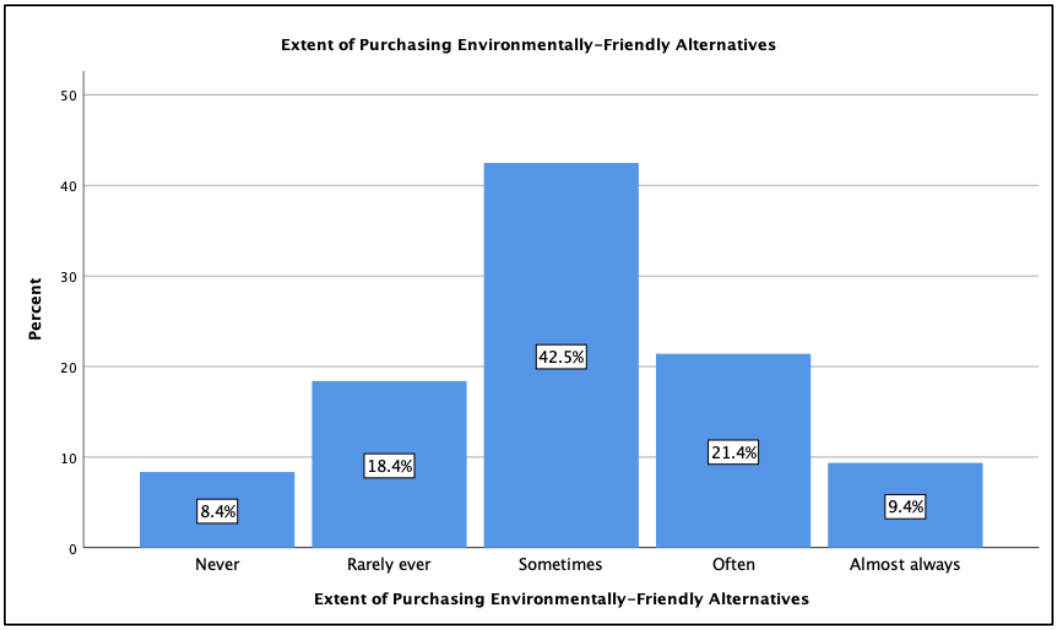


Figure 10 - Environmentally-Friendly Alternatives Purchases



Figure 11 - Environmentally-Friendly Shampoos Purchases

4.3 Eco-Label Perception

The European eco-label within the experimental group was tested among the three variables: familiarity, likability and trust. These questions were created to analyse the respondents' credibility of the label.

First, the label familiarity was tested, and it was found that very few people were familiar with the eco-label presented (11.0%). Whereas, mainly respondents were either *slightly familiar* (29.5%) or *not familiar at all* (32.9%) with it.

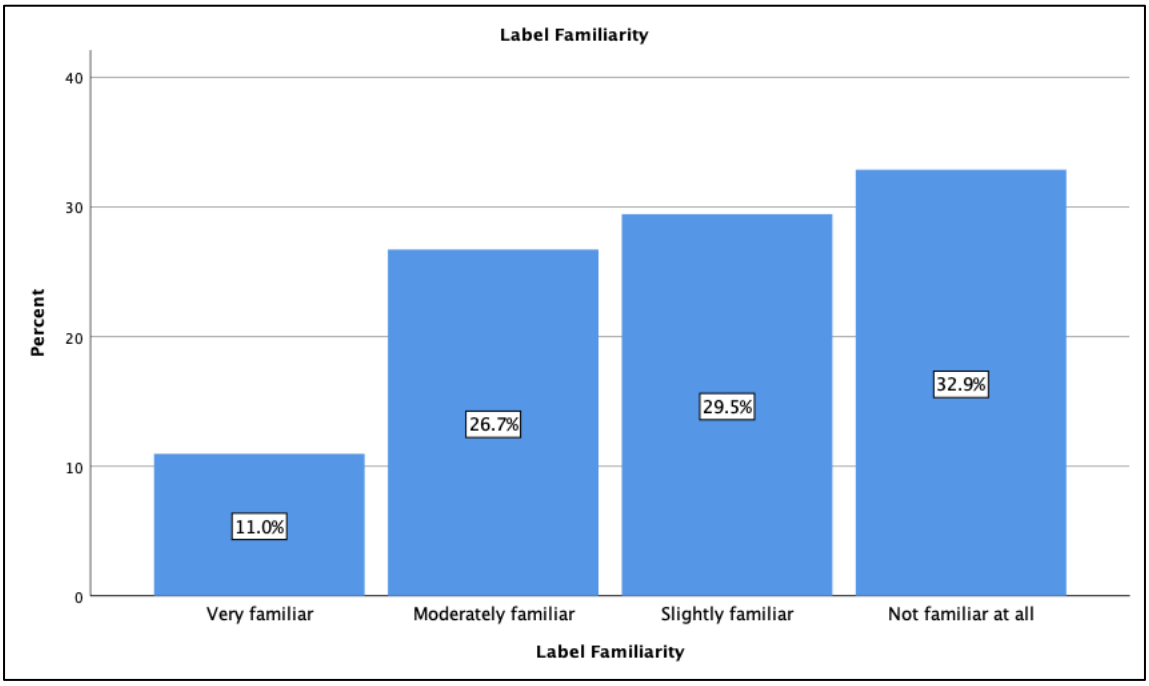


Figure 12 - Eco-Label Familiarity

Furthermore, the participants were asked how much they like the label. The most common answer was *somewhat* (39.0%) and *very* (30.8%). The resulting mean is 2.97, which is equivalent to 3, corresponding to the *somewhat* response.

		Percent
To what extent do you trust that this product is environmentally friendly?	Not at all	5.5%
	Slightly	20.5%
	Somewhat	39.0%
	Very	30.8%
	Extremely	4.1%
Total		100.0%

Table 1 - Eco-Label Trust

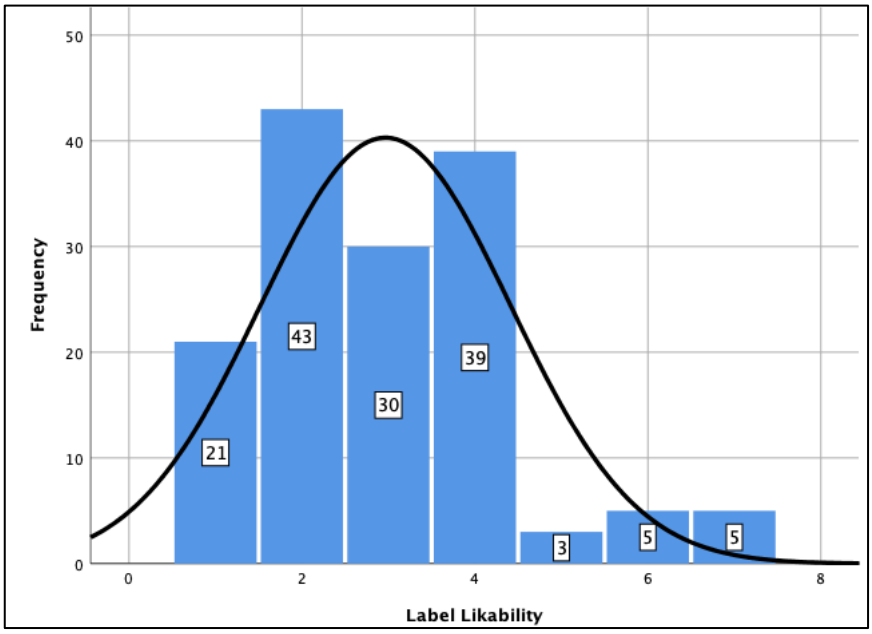


Figure 13 - Eco-Label Likability

Lastly, the trustworthiness of the eco-label was measured. The majority of the respondents either are either *somewhat* or *very* trusting of the label (69.8%). On the other hand, only 4.1% are entirely trustworthy of the shampoo label.

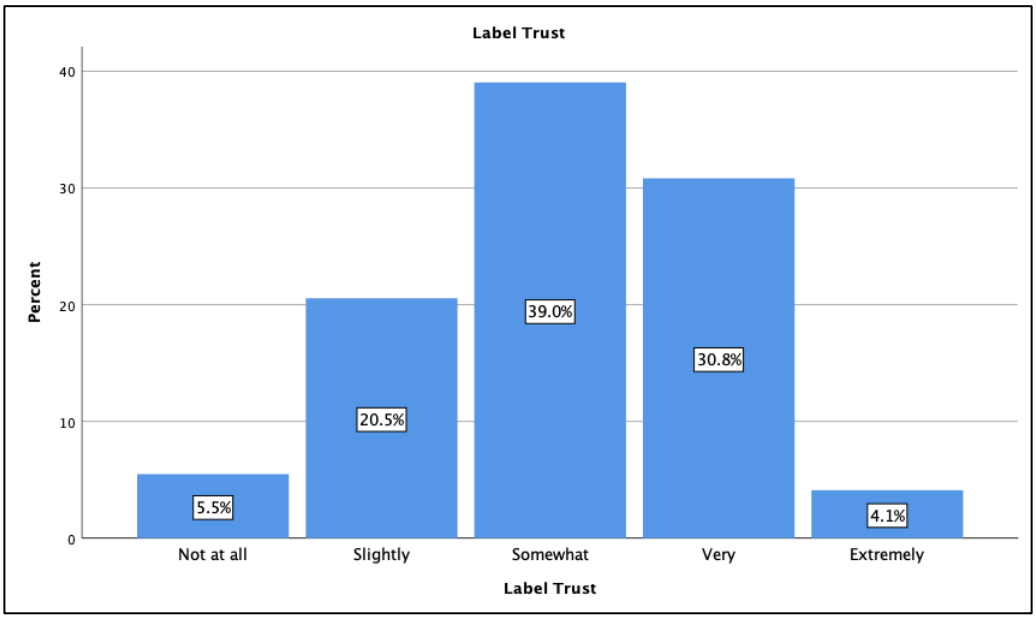


Figure 14 - Eco-Label Trust

Furthermore, a crosstabulation between label familiarity and label trustworthiness was created. This result is meant to describe certain aspects of green advertising scepticism.

	Label Familiarity				
Label Trustworthiness		Very	Moderately	Slightly	Not at all
	Not at all	0.0%	0.0%	4.7%	12.5%
	Slightly	0.0%	7.7%	27.9%	31.3%
	Somewhat	6.3%	56.4%	37.2%	31.3%
	Very	81.3%	28.2%	27.9%	18.8%
	Extremely	12.5%	7.7%	2.3%	0.0%

Table 2 - Label Trust vs Label Familiarity

	Label Likability							
Label Trust-worthiness		Like a great deal	Like a moderate amount	Like a little	Neither like or dislike	Dislike a little	Dislike a moderate amount	Dislike a great deal
	Not at all	0.0%	12.5%	25.0%	25.0%	0.0%	25.0%	12.5%
	Slightly	3.3%	33.3%	36.7%	23.3%	3.3%	0.0%	0.0%
	Somewhat	7.0%	26.3%	24.6%	29.8%	3.5%	5.3%	3.5%
	Very	28.9%	33.3%	6.7%	28.9%	0.0%	0.0%	2.2%
	Extremely	50.0%	33.3%	0.0%	0.0%	0.0%	0.0%	16.7%

Table 3 - Label Trust vs Label Likability

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	53.366[a]	24	.001
Likelihood Ratio	52.551	24	.001
Linear-by-Linear Association	9.427	1	.002
N of Valid Cases	146		

a. 24 cells (68.6%) have expected count less than 5. The minimum expected count is .12.

Symmetric Measures

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Interval by Interval	Pearson's R	-.255	.091	-3.164	.002[c]
Ordinal by Ordinal	Spearman Correlation	-.273	.082	-3.410	.001[c]
N of Valid Cases		146			

Table 4 - Chi-Square Tests

Moreover, the majority of the subjects were on the right track concerning the meaning of the eco-label: eco-friendliness. The Euro sign was confusing to most of the participants, some of whom thought it represented a low price, and reassuring to those who correctly believed it suggested that the EU is an associating third-party with the eco-label. A small degree of individuals even suggested the stage in the product's life cycle during which the positive environmental impact is exercised, e.g. during production or product disposal. In the word cloud below, one can see the frequency of the words used in the responses, reflected in the size of the word.

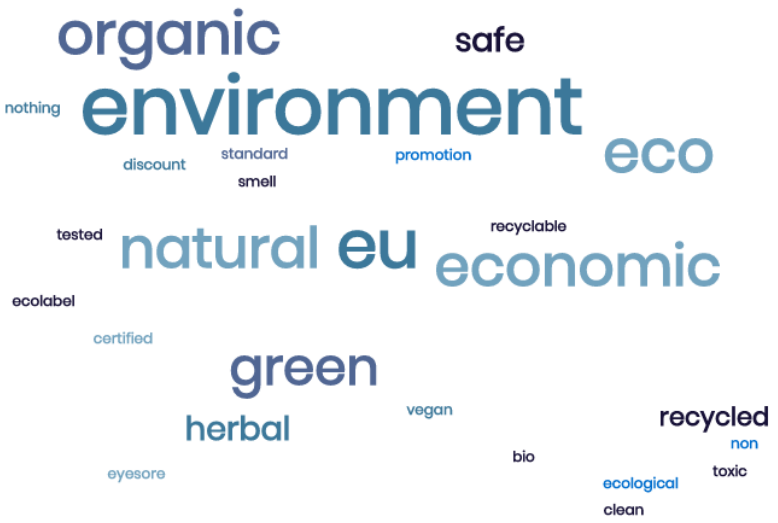


Figure 15 - Word Cloud for Label Meaning (created on monkeylearn.com)

4.4 Green Advertising Credibility

4.4.1 Purchase Consideration

The chi-squared test was used to investigate the association between two categorical variables. One of these variables will describe the group (control, experimental) while the other variable describes some aspects of green advertising credibility. The null hypothesis specifies that there is no association between the two categorical variables and is accepted if the p-value exceeds the 0.05 level of significance. The alternative hypothesis specifies that there is a significant association between the two categorical variables and is accepted if the p-value is less than the 0.05 criterion.

			Group		
			Control	Experimental	Total
Would you consider buying the shampoo pictured using the money provided?	Yes	Count	24	54	78
		Percentage	15.5%	37.0%	25.9%
	Maybe	Count	68	62	130
		Percentage	43.9%	42.5%	43.2%
	No	Count	63	30	93
		Percentage	40.6%	20.5%	30.9%
Total		Count	155	146	301
		Percentage	100.0%	100.0%	100.0%

$X_2(2) = 23.277$, $p < 0.001$

Table 5 - Purchase Consideration

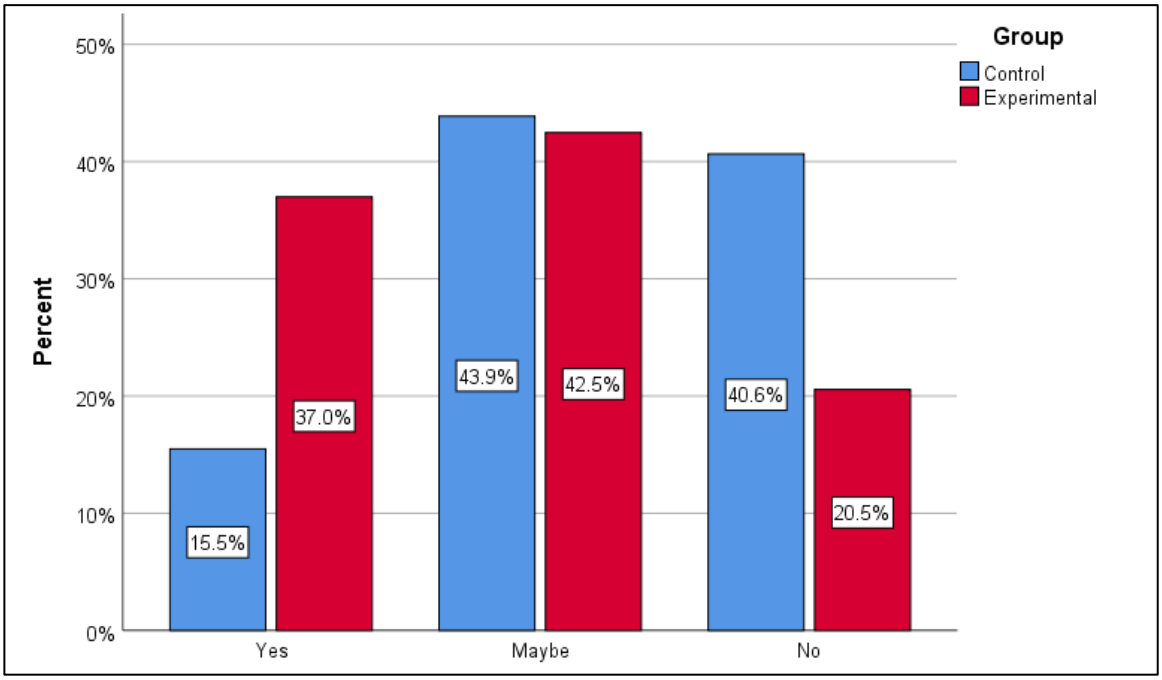


Figure 16 - Purchase Consideration

The results show that subjects exposed to the eco-labelled product were more willing to consider purchasing the product than those who were shown its standard counterpart, such that a statistically significant difference is exhibited.

4.5 Willingness-to-Pay

Respondents in the control group inclined towards the lowest option (less than €5) when asked how much they were willing to spend, out of the €50. The majority of respondents in the experimental group lied in the *€5 to €10* range.

Table 6 shows that a larger percentage of participants in the control group (57.4%) are willing to pay *less than €5*, compared to the experimental group (21.2%). On the other hand, the cross tab also shows a larger percentage of participants in the experimental group (78.8%) who are willing to pay *more than €5* compared to the control group (42.6%). Regarding the option of *more than €10*, only a total of 10.3% out of both tests chose this option. The majority lies within the experimental test. These percentage differences are significant since the p-value (approximately 0) is less than the 0.05 level of significance. For this reason, the results can be generalised to state individuals in the experimental group are willing to pay more than participants in the control group.

		Group		
		Control	Experimental	Total
How much money, out of the €50, would you be willing to spend on this product?	Less than €5	57.4%	21.2%	39.9%
	Between €5 and €10	36.1%	64.4%	49.8%
	More than €10	6.5%	14.4%	10.3%
Total		100.0%	100.0%	100.0%

$X_2(2) = 41.331$, $p < 0.001$

Table 6 - WTP among the two tests

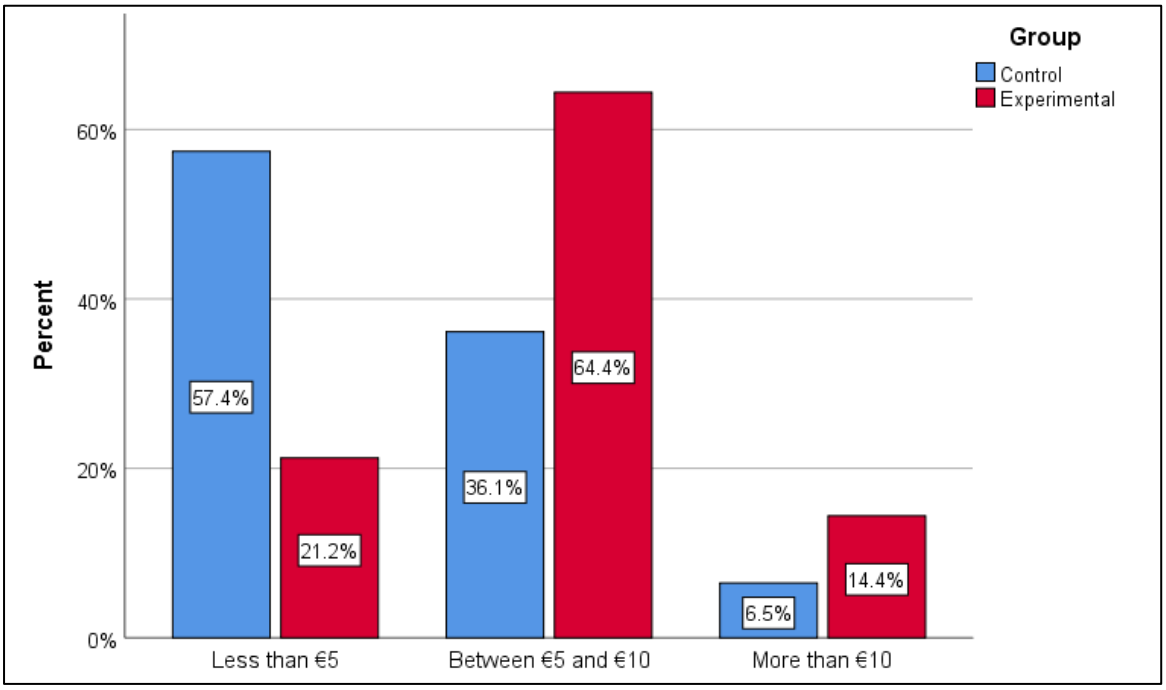


Figure 17 - WTP among the two tests

Unsurprisingly, the median price range for the control treatment was found to be that of *less than €5*. This finding was also the resulting mode for that condition. Further, for the experimental condition, both the median and the modal range was *between €5 and €10*.

Subsequently, this analysis confirms that the subjects are easily affected by the reference point used. The anchor price was that of €7, which was mentioned in similar narratives of both conditions. The majority of the participants within the experimental treatment are likely to have picked the *€5 to €10* option because they had just read the narrative a few seconds earlier; and it was conveniently introduced in their short-term memory. Nevertheless, the median price range for the control test was *less than €5*. This result can be interpreted as close to half of that of the former. For this reason, respondents were willing to pay an approximate of the anchor price for the labelled

(experimental) shampoo, but hesitant to do so when it came for the standard (control) shampoo. These results suggest that many of the respondents found €7 to be too expensive for regular shampoo. Contrastingly, it seemed an acceptable price for the shampoo with the green implications. In this regard, people record a higher WTP for green products.

4.5.1 WTP Changes

Within the experimental test, once the participants were made aware of what the eco-label represents, they were asked whether this would change their WTP. Table 7 displays a large percentage of participants who had previously chosen to pay *more than €10*, not willing to revise their price (75.0%). On the other hand, experimental subjects who had earlier chosen to pay *less than €5* (63.2%) and *between €5 and €10* (62.9%), now chose to change their spending amount.

		No	Yes
Do you want to revise how much money you would be willing to spend on this product?	Less than €5	54.8%	63.2%
	Between €5 and €10	48.4%	62.9%
	More than €10	75.0%	35.5%
	Total	53.5%	46.5%

Table 7 - Revising WTP

Furthermore, the survey presents an open-ended question to the participants who choose to change their WTP value, asking them to specify what the price change would entail. The most common prices changes were to €10 (37.7% of respondents that chose *yes* to change the price) and €15 (32.1%).

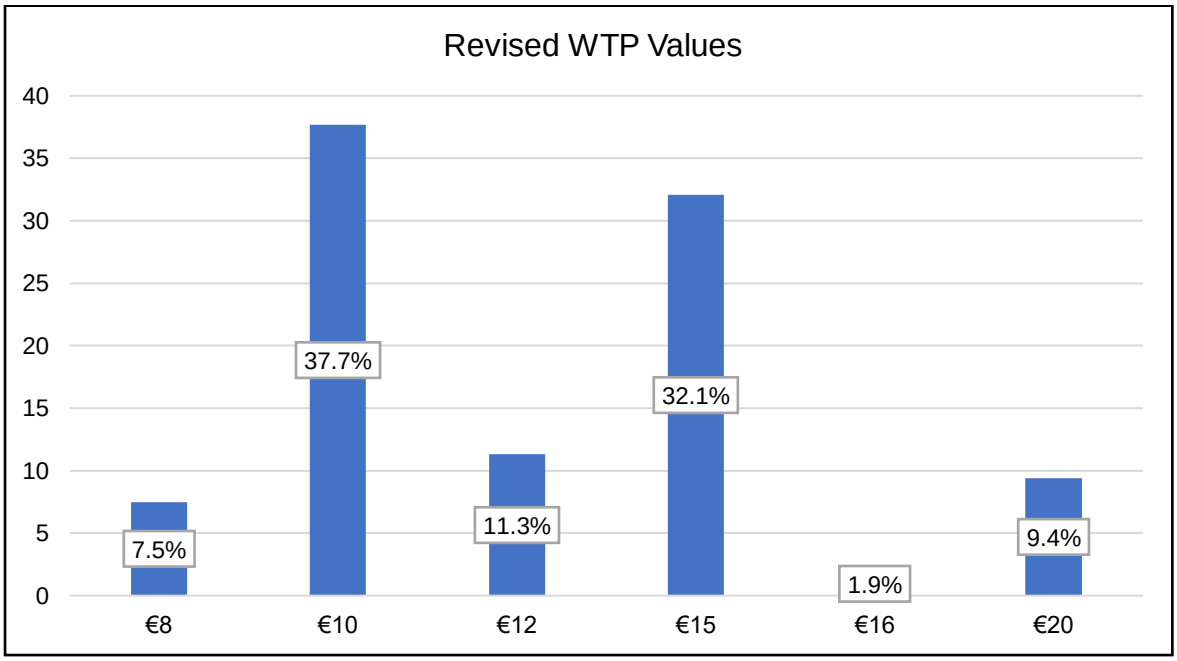


Figure 18 - Revised WTP Values

4.6 Important factors when purchasing

Figure 19 below shows that price and quality are considered essential factors in the purchasing decision of products like shampoo, at 63.2% and 62.9% respectively. These findings were followed by ingredients, brand, packaging and promotion. Besides, 6% of the respondents opted for the open-ended answer, in which half of the answers suggested that it should be suitable for their hair type, whereas the other half suggested that they would take into consideration the smell, the product reviews and the ethical implications associated with its production.

		Frequency	Percentage
Which factor is most important to you when buying products like shampoo or similar?	Price	189	63.2%
	Quality	188	62.9%
	Brand	106	35.5%
	Ingredients	152	50.8%
	Packaging	57	19.1%
	Promotion	11	3.7%
	Other	18	6.0%

Table 8 - Important Purchasing Factors

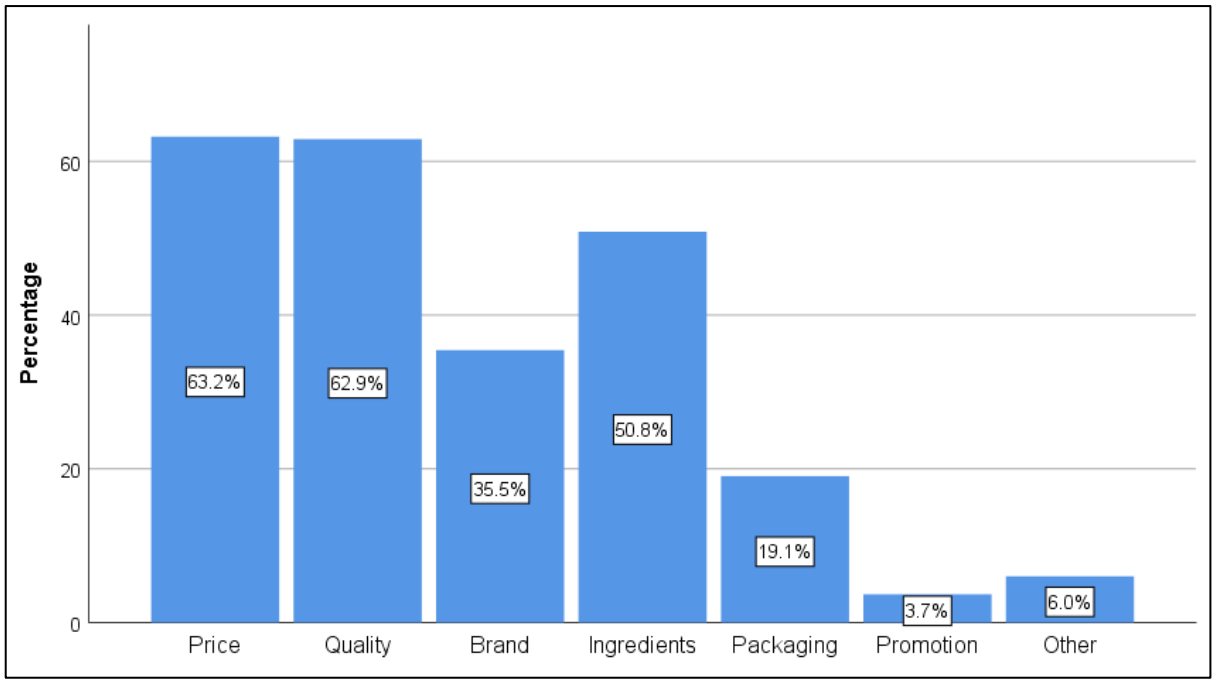


Figure 19 - Important Purchasing Factors

4.7 Perception of products

The perception of both shampoo bottles was measured using the three attributes: *appealing*, *high-quality* and *informative*. A large discrepancy is seen between the two tests for each attribute. On the whole, participants who were exposed to the standard shampoo consistently displayed a lack of preference towards it, when compared to the eco-labelled shampoo.

The Shapiro-Wilk test was used for the normality of the data for the three attributes. This test indicated that the data is not normally distributed since the p-values were found to be less than 0.05 for all three attributes. For that reason, the Mann-Whitney U Test (parametric test) is used, and this found that there is a significant difference between the three attributes. Both tests can be found in Appendix B.

The two tests were compared with each other with regards to these variables. When applying the Mann-Whitney U Test for the three attributes, a significant difference is displayed. The results achieved are based on the five-point Likert scale of: *not at all* (1); *a little* (2); *somewhat* (3); *mostly* (4), and; *very* (5).

The eco-labelled shampoo is much more effective than its non-green counterpart product. In fact, in the experimental test, the average value for *appealing* was 3.40 (which falls between *somewhat* and *mostly*). In the control group, this was 1.99 (approximates to *a little*). Similarly, for the attribute *high-quality*, the average in the experimental is close to the response of *somewhat*. The control group shows a

significantly less average of 1.76 (which falls between *not at all* and *a little*). As for the two *informative* means, these also shows a significant difference between the experimental and control groups, values being equal to 3.34 and 1.85, approximating to *somewhat* and *a little*, respectively.

Groups		Appealing	HighQuality	Informative
Control	Mean	1.99	1.76	1.85
	N	153	144	143
	Std. Deviation	1.010	1.003	1.002
Experimental	Mean	3.40	3.14	3.34
	N	144	142	140
	Std. Deviation	1.178	1.235	1.161
Total	Mean	2.67	2.45	2.58
	N	297	286	283
	Std. Deviation	1.299	1.318	1.314

Figure 20 - Product Attributes

The most considerable discrepancy in means between the two conditions is found within the *informative* attribute, although all three attributes display a statistically significant difference between the control test and the experimental test. For that reason, it can be concluded that the eco-labelled shampoo was considered more favourable than the standard bottle of shampoo presented.

4.7.1 Appealing

A larger percentage in the control group is exhibited to find the shampoo as *not appealing* or *only a little* (74.6%), compared to the experimental group (22.9%). In contrast, there is a larger percentage of participants in the experimental group (57.7%) who find the product as *mostly* and *very appealing*, compared to the control group (8.5%). These percentage differences are significant since the p-value (approximately

0) is less than the 0.05 level of significance. For this reason, the results may be generalised to state that individuals in the experimental group find the eco-labelled shampoo more *appealing* than individuals in the control group find its standard counterpart.

		Group		
		Control	Experimental	Total
To what extent do you consider the shampoo above: - Appealing	Not at all	37.3%	9.7%	23.9%
	A little	37.3%	13.2%	25.6%
	Somewhat	17.0%	19.4%	18.2%
	Mostly	5.9%	43.1%	23.9%
	Very	2.6%	14.6%	8.4%
Total		100.0%	100.0%	100.0%

$X_2(4) = 96.055$, $p < 0.001$

Table 9 - Appealing Perception

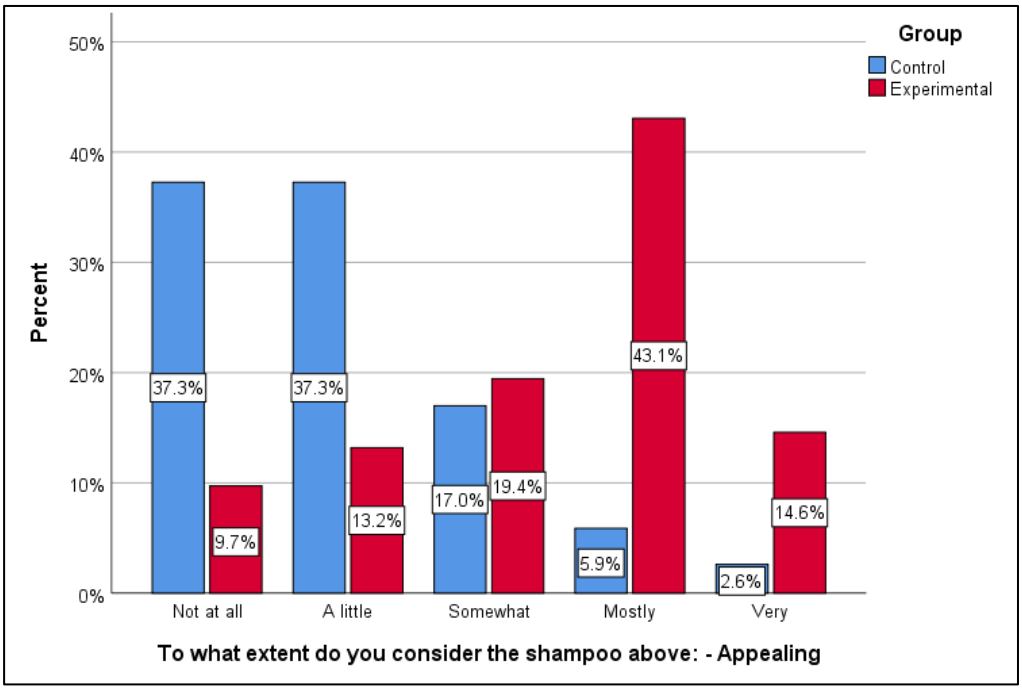


Figure 21 - Appealing Perception

4.7.2 High-Quality

Table 10 displays a larger percentage of subjects in the control group (76.3%) who find the shampoo bottle as *not high-quality* or *only a little*, compared to the experimental group (26.4%). Contrastingly, there is a larger percentage of participants in the experimental group (50.0%) who find the product as *mostly* and *very high-quality*, compared to the control group (7.7%). These percentage differences are significant since the p-value (approximately 0) is less than the 0.05 level of significance. The results can therefore, be generalised to state that individuals in the experimental group find the eco-labelled shampoo more *high-quality* than individuals in the control group find the standard bottle of shampoo.

		Group		
		Control	Experimental	Total
To what extent do you consider the shampoo above: - High Quality	Not at all	48.3%	6.4%	27.6%
	A little	28.0%	20.0%	24.0%
	Somewhat	16.1%	23.6%	19.8%
	Mostly	6.3%	33.6%	19.8%
	Very	1.4%	16.4%	8.8%
Total		100.0%	100.0%	100.0%

$X_2(4) = 93.462$, $p < 0.001$

Table 10 – High-Quality Perception

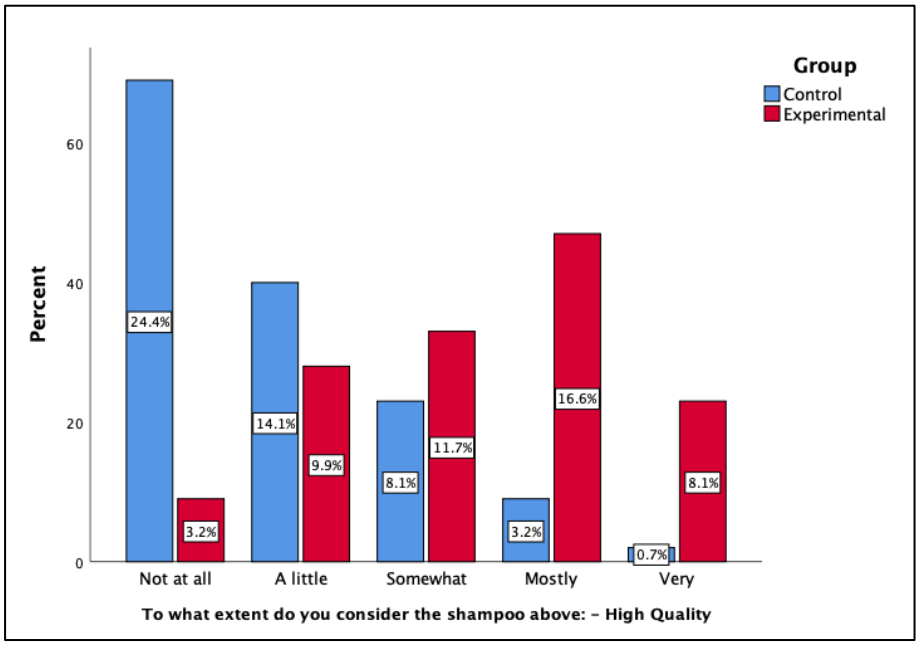


Figure 22 – High-Quality Perception

4.7.3 Informative

In Table 11, it is clear that the control group displays the largest percentage (55.6%) of respondents who find the shampoo as *not informative at all*, compared to the experimental (10.6%). The largest percentage for the latter group is participants who find the product *somewhat informative* (31.0%).

		Group		
		Control	Experimental	Total
To what extent do you consider the shampoo above: - Informative	Not at all	55.6%	10.6%	33.2%
	A little	20.8%	20.4%	20.6%
	Somewhat	16.0%	31.0%	23.4%
	Mostly	6.9%	20.4%	13.6%
	Very	0.7%	17.6%	9.1%
Total		100.0%	100.0%	100.0%

$X_2(4) = 82.473$, $p < 0.001$

Table 11 - Informative Perception

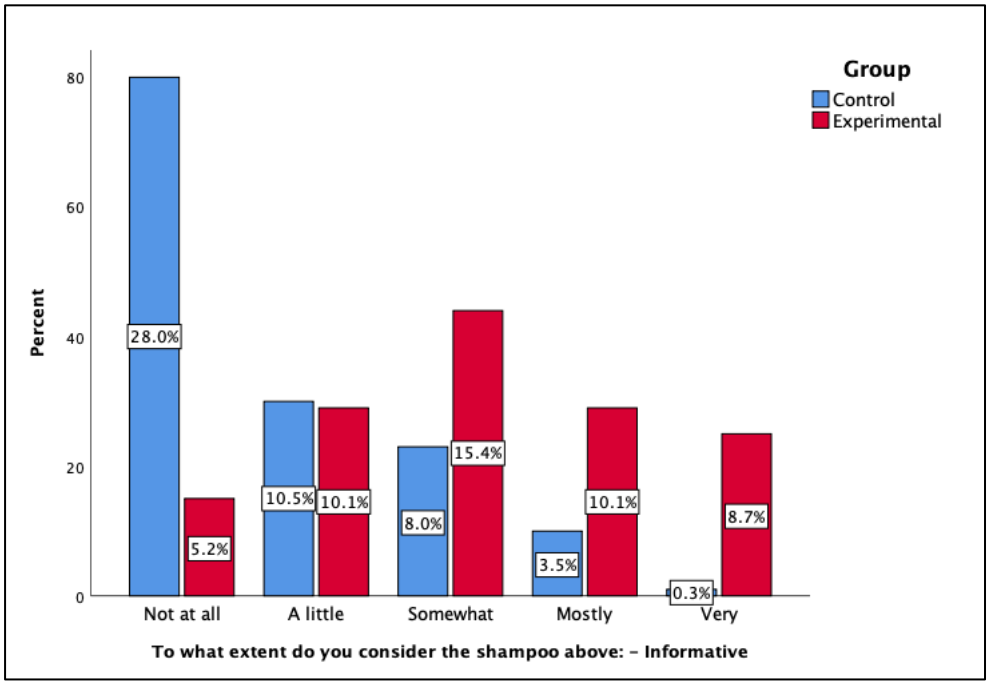


Figure 23 - Informative Perception

4.8 Differences between demographic characteristics on WTP

The researcher intended to identify whether demographic characteristics, like gender and age, make a difference when it comes to the participants' responses for how much they were willing to pay. To achieve this, a crosstabulation was created for each demographic characteristic, against WTP.

The crosstab below shows that both male and female genders responded that they are willing to pay *less than €5* in the control test and for the experimental the range *€5-€10* displays the largest percentage. The response for *less than €5* is greater for the males than it is for females within the control test (a difference of 22.7%).

Furthermore, in both tests, more females were willing to pay more for the shampoos than males.

How much money, out of the €50, would you be willing to spend on this product?		Control	Exp.
Male	Less than €5	72.7%	34.1%
	€5 - €10	25.5%	52.3%
	More than €10	1.8%	13.6%
Female	Less than €5	50.0%	16.0%
	€5 - €10	41.7%	69.0%
	More than €10	8.3%	15.0%

Table 12 - WTP and Gender

Table 13 shows that all age groups opted to pay *less than €5* in the control test, except for the participants that were 55 years or more (63.6%). In the experimental test, all groups show the highest percentage for the range of *€5-€10* with the respondents aged 18-24 displaying a more significant percentage than the other groups.

How much money, out of the €50, would you be willing to spend on this product?		Control	Exp.
18-24 years	Less than €5	65.3%	16.2%
	€5 - €10	28.6%	73.0%
	More than €10	6.1%	10.8%
25-34 years	Less than €5	46.7%	38.5%
	€5 - €10	36.7%	51.3%
	More than €10	16.7%	10.3%
35-44 years	Less than €5	56.8%	38.5%
	€5 - €10	43.2%	51.3%
	More than €10	0.0%	10.3%
45-54 years	Less than €5	66.7%	16.0%
	€5 - €10	28.6%	60.0%
	More than €10	4.8%	24.0%
55 years or more	Less than €5	36.4%	33.3%
	€5 - €10	54.5%	55.6%
	More than €10	9.1%	11.1%

Table 13 - WTP and Age

All income groups display the largest percentage in the *less than €5* category and the *€5 to €10* category for the control test and the experimental respectively, as seen in Table 14 below.

How much money, out of the €50, would you be willing to spend on this product?		Control	Exp.
Less than €10,000	Less than €5	56.4%	36.0%
	€5 - €10	35.9%	56.0%
	More than €10	7.7%	8.0%
€10,000 to €19,999	Less than €5	52.4%	16.7%
	€5 - €10	38.1%	68.8%
	More than €10	9.5%	14.6%
€20,000 to €29,999	Less than €5	54.5%	26.7%
	€5 - €10	42.4%	70.0%
	More than €10	3.0%	3.3%
€30,000 to €39,999	Less than €5	66.7%	16.7%
	€5 - €10	33.3%	55.6%
	More than €10	0.0%	27.8%
€40,000 to €49,999	Less than €5	75.0%	0.0%
	€5 - €10	25.0%	55.6%
	More than €10	0.0%	44.4%
€50,000 to €59,999	Less than €5	66.7%	33.3%
	€5 - €10	16.7%	66.7%
	More than €10	16.7%	0.0%

Table 14 - WTP and Income

Below, Table 15 shows that respondents from all areas in Malta have the highest percentages for *less than €5* in the control group, and *between €5 to €10* in the experimental group.

How much money, out of the €50, would you be willing to spend on this product?		Control	Exp.
Southern Harbour	Less than €5	65.2%	25.0%
	€5 - €10	26.1%	56.3%
	More than €10	8.7%	18.8%
Northern Harbour	Less than €5	56.7%	28.0%
	€5 - €10	36.7%	60.0%
	More than €10	6.7%	12.0%
South Eastern	Less than €5	47.7%	17.5%
	€5 - €10	44.6%	64.9%
	More than €10	7.7%	17.5%
Western	Less than €5	61.1%	32.0%
	€5 - €10	38.9%	56.0%
	More than €10	0.0%	12.0%
Northern	Less than €5	75.0%	13.3%
	€5 - €10	16.7%	80.0%
	More than €10	8.3%	6.7%
Gozo	Less than €5	100.0%	0.0
	€5 - €10	0.0%	85.7%
	More than €10	0.0%	14.3%

Table 15 - WTP and Residence Area

Similar results are obtained, among all education levels for both tests. The highest percentages are those for *less than €5* for the control test, and from *€5 to €10* in the experimental test.

How much money, out of the €50, would you be willing to spend on this product?		Control	Exp.
Secondary school	Less than €5	46.9%	27.6%
	€5 - €10	43.8%	58.6%
	More than €10	9.4%	13.8%
Post-secondary school	Less than €5	56.4%	20.5%
	€5 - €10	36.4%	68.2%
	More than €10	7.3%	11.4%
Bachelor's Degree	Less than €5	71.1%	12.2%
	€5 - €10	28.9%	68.3%
	More than €10	0.0%	19.5%
Master's Degree or higher	Less than €5	52.4%	29.0%
	€5 - €10	33.3%	58.1%
	More than €10	14.3%	12.9%

Table 16 - WTP and Education Level

Furthermore, a cross tabulation between WTP and environmentalism was created. On all points of the five-point Likert scale, in the control group, the highest percentages were those for *less than €5*. In the experimental test, these were in the *€5 to €10*

range, as seen in Table 17. The only exceptions are the participants who *slightly* identify as environmentalists, within the control test, whose results are divided between *less than €5* and *€5 to €10* equally.

How much money, out of the €50, would you be willing to spend on this product?		Control	Exp.
Not at all	Less than €5	70.0%	25.0%
	€5 - €10	10.0%	75.0%
	More than €10	20.0%	0.0%
Slightly	Less than €5	50.0%	23.1%
	€5 - €10	50.0%	69.2%
	More than €10	0.0%	7.7%
Somewhat	Less than €5	55.9%	20.0%
	€5 - €10	35.6%	61.7%
	More than €10	8.5%	18.3%
Mostly	Less than €5	60.5%	18.8%
	€5 - €10	31.6%	62.5%
	More than €10	7.9%	18.8%
Completely	Less than €5	100.0%	33.3%
	€5 - €10	0.0%	50.0%
	More than €10	0.0%	16.7%

Table 17 - WTP and Environmentalism

4.9 Demographic analysis

The demographics of the participants in the study will be assessed. A total of 337 respondents participated in the survey. Out of those, 301 managed to complete it, and only these were used in the analysis presented. This total should serve as a correct representation of the population interested, according to the calculations suggested in the methodology.

4.9.1 Gender

The majority of the respondents were female, standing at 66.4%, whereas the number of males added up to 33.6%. With a confidence interval of 5%, the ranges for these percentages are 61.44% to 71.44% and 28.56% to 38.56%, respectively. As stated by NSO's most recent demographic statistics report, the percentages of females and males are 49.07% and 50.92%. Neither of the figures fall within the confidence interval ranges; therefore, the sample generated is not representative of the population with regards to gender. Several underlying factors may contribute to this. The main reason may be due to utilising convenience sampling as a research design.

4.9.2 Age Distribution

The only age groups from the sample that are representative of the population are the 25-34-year-olds and the 45-54-year-olds. Various underlying factors and variables may contribute to this. Possibly, the fact that the data collection was online may have

contributed to this, since the younger generations tend to have a stronger online presence than the elderly population.

Age Groups	Sample	Confidence Interval Range	Population
18-24	28.57%	23.57% - 33.57%	9.74%
25-34	22.92%	17.92% - 27.92%	21.48%
35-44	26.58%	21.58% - 31.58%	18.48%
45-54	15.28%	10.28% - 20.28%	13.99%
55-64	5.32%	0.32% - 10.32%	14.32%
65 and over	1.33%	0% - 6.32%	21.98%

Table 18 - Age Distribution

4.9.3 Regions

By using the same approach, it was found that the regions which are not representative of the population are the Northern Harbour, South Eastern and the Northern region. This occurrence may be rooted in the way that the data was gathered - convenience sampling.

Region	Sample	Confidence Interval Range	Population
Southern Harbour	13.09%	8.09% -18.09%	16.83%
Northern Harbour	18.46%	13.46% - 23.46%	33.00%
South Eastern	40.94%	35.94% - 45.94%	14.33%
Western	14.43%	9.43% - 19.43%	12.41%
Northern	9.06%	4.06% - 14.06%	16.64%
Gozo and Comino	4.03%	0% - 9.32%	6.80%

Table 19 - Residence Area Distribution

4.9.4 Education

It was found that none of the education levels are representative of the population through the same technique. This finding may be due to numerous reasons. Potentially, had random sampling been utilised to distribute the survey, this may have been avoided.

Education Level	Sample	Confidence Interval Range	Population
Secondary School	20.47%	15.47% -25.47%	35.06%
Post-Secondary School	33.22%	28.22% - 38.22%	42.91%
Bachelor's Degree	28.86%	23.86% - 33.86%	14.41%
Master's Degree or higher	17.45%	12.45% - 22.45%	7.62%

Table 20 - Education Levels Distribution

4.10 Conclusion

Although the results obtained are not entirely representative of certain aspects of Malta's residing population, a number of the findings achieved are in line with the researcher's expectations. These will be further explored in the chapter to follow.

5 Discussion

This section aims to give an understanding of the data that was gathered from the survey. The main link between WTP and green consumption was tested, namely through the kind of green advertising, in particular, eco-labelling. This dissertation is drawn on past research on green advertising, as it exhibits the apparent connection between the two fields, which aids in thorough comprehension.

5.1 Objectives of the Study

First and foremost, the data suggests that the eco-label, does, in fact, matter. The results obtained show apparent differences between the control test and the experimental test carried out, which are consistent with previous studies. These differences mainly relate to the respondents' perception and WTP concerning the two shampoo bottles presented in each test.

It can be said, that having the European eco-label included on a shampoo bottle's packaging, compared to its counterpart with no label, positively impacts both the perception and the WTP of consumers, assuming that all other variables remain equal. The study demonstrates a statistically significant difference with regards to both of these measurements. This result was anticipated by the researcher, since this is backed up by previous studies.

The findings acquired provide elements of consumer scepticism towards a green product. Some of the most relevant fields that were directly explored in this research

study include perceived product appeal, eco-label familiarity and likability, and consumer trustworthiness; all of which influence one's WTP for a green product.

This study, therefore, aims to deepen the current understanding of green consumption to inform further research, as well as the development of products and policy.

5.2 Willingness-to-Pay

5.2.1 Summary of Findings

For the most part, the results indicate that marketing a product as green makes a significant difference when compared to the standard version of that product. The research found that consumers in Malta are very inclined to be willing to pay a premium for an eco-labelled product, even when they are unsure of what it represents (although the majority did manage to interpret it as environmentally-friendly). This is in line with the hypothesis that subjects in the experimental condition will choose to pay more than those in the control test (H1). This result may derive from the perception that the experimental product is significantly more favourable to the standard product, with regards to the three tested attributes.

The data also suggests that respondents showed a positive attitude towards the labelled shampoo in the initial stage of the purchase consideration process. In comparison, subjects in the control test reported a less favourable impression of the standard product presented, among all three attributes. The values obtained for WTP in both conditions reflect these findings. This is not surprising since the product used

– a bottle of shampoo – is generally a low-cost product, and not one of status display. For this reason, it is more likely to be a low-consideration purchase, wherein customers are more probable not to do thorough research or rational analyses on the product before purchasing, possibly even engaging in impulse buying. That being said, the pilot study did, in fact, show a presence of brand loyalty, and so the narrative was altered to minimise this as much as possible.

5.2.2 Interpretations and Implications

Displayed in this study, is the lack of knowledge regarding what the European eco-label for soaps, shampoos and hair conditioners represents. Subjects within the experimental condition were first shown the labelled product and asked to provide their WTP value. Following this, the surveyor revealed the criteria entailed in the eco-label, including the facts that the amount of packaging waste produced is kept to a minimum, a high degree of biodegradability is adopted in the production process and the fact that dangerous substances are overseen, among others. Having learnt this knowledge, a little under half of all participants opted to alter their WTP value, typically raising it to higher prices. Precisely, the results convey that the two highest percentages of individuals who opted to change their previously chosen WTP price range, fall within the options *less than €5* and *between €5 and €10*. Furthermore, the latter of the two groups was found to be the one with the highest number of participants wishing to alter the price that they would have paid, following the acquisition of relevant knowledge on the green product, with regards to participant count.

In the Maltese context, this suggests that increased public education on the implications of the eco-label may potentially create a significant increase in the market growth for green products. Given that an increase in sales of green products has powerful ethical (and potentially economic) benefits, it is in the interest of any Government expressing a benevolent attitude to achieve this.

This research, therefore, suggests that Malta may be able to achieve a broader green market, comprised of products that work in line with its environmental aspirations through increased education on the subject. This may be accomplished in several ways, ranging from Government-run educational campaigns to the presentation of the relevant information at the selling points of these products.

For producers to financially gain from selling green products, revenue has to outweigh the costs, including those to educate the target market involved. For this reason, companies targeting green consumers should evaluate the consistent ethical effort required to increase their market share. This includes genuine transparancy about their efforts in being green, to grow and maintain customer credibility and loyalty. As mentioned in the literature review, it is costly for brands when customers feel misled by an advert, even if the corporate efforts made regarding the environment are authentic.

Corporations should consider the potentially increased perceived value had the consumer been more aware of the label implications in the first place. By improving education on the subject, producers may also be able to raise the price of green

product, hence increasing the revenues acquired, which could lead to an even higher market for green goods. From an economic standpoint, a rise in the production of green commodities in the market should be easily quantifiable and added to the profit function as corporate social responsibility.

At the EU level, together with the launch of an educational campaign, the eco-label for shampoos (and potentially other products) may also be revised to be a more informative one. The ideal eco-label is both self-explanatory, similar to the recycling logo; and aesthetically appealing. The Euro sign embedded in the European eco-label should mainly be considered for adjustment since most of the respondents perceived it as an indication that the product is of a lower value, rather than as a symbol of the EU's approving of the eco-friendly aspect of the product.

5.3 Environmentalism

5.3.1 Summary of Findings and Interpretations

As part of the research, participants were also asked to submit a self-evaluated level of environmentalism. This may have been limited to the egocentric bias, however, in general, the average respondent identified as *somewhat* of an environmentalist, which was rather predictable given that this option was the middle one out of a five-point Likert scale. Interestingly, the least responded answer was *completely*, which may be due to psychological ownership. This theoretical framework mediates the connection between self-identity and consumer attitudes (Mo, Liu and Liu, 2018).

The results are in line with the proposed H3, which theorised that individuals who indicate likability towards eco-label are more likely to demonstrate credibility than those who do not. The research found that likability of and credibility in the eco-label are not always directly related. The results confirm this however, and so H3 is accepted. These results could prove beneficial if taken into account when considering how to go about creating marketing for green products and services. The reason being that, they could serve insightful in the knowledge that consumers who like a green advert more are more probable to express a credible attitude towards the product.

For this reason, the researcher recommends that companies pretest their adverts and labels for likability and familiarity before launching them into the market. A second suggestion is for the advertisers to pay particular attention to the design and aesthetics of the adverts put out, which can increase their likability among potential consumers. Further to this, as mentioned in the literature review, producers should avoid vagueness in their green claims since the research found that it contributes to low consumer credibility.

5.3.2 Implications

Attention was given to distancing the effect of brand loyalty on the respondent. Had it not been the case, it may have prevailed *green consumers* who tend to have lower brand loyalty than ordinary consumers since a product's environmental impact is considered as more important than a brand and what it represents (for example: status or comfort). When explicitly asked which factors they consider most important when

buying shampoo, branding ranked fourth (35.5%) whereas the respondents deemed a product's ethical implications of great importance in less than 3% of the time. One may note that a degree of anchoring bias may have been present within this question, as the list of options included *brand*, however it was up to the respondent to suggest environmental implications in the open-ended option for *other*. For this reason, although this result is not entirely conclusive in this study, being aware of this, could prove beneficial to companies when implementing green advertising. Targeting customers who value a product's environmental implications (henceforth referred to as 'green customers') requires a great deal of continuous effort which may prove costly and resource-consuming. Having acknowledged this would allow the market to shift to more sustainable practices.

5.4 Demographic Profiling for Green Consumers

5.4.1 Summary of Findings

The analysis confirms that generally, both males and females responded similarly in choosing the *less than €5* option in the control test, and the *between €5 and €10* response in the experimental test. Since the percentage of females choosing the two greatest options were more extensive than those of males, this research supports the studies carried out by Elliott (2013) and Taylor and Boasson (2014), who found that gender tends to affect one's WTP. In contrast, this research disagrees with those carried out by Youn and Kim (2008) and Ferri and Pedrini (2018) who reported no particular effect between the two variables. Instead, WTP may depend on attitudinal or behavioural factors, regardless of gender.

With regards to age groups, in general, all groups selected similar responses for each test, with one exception: the highest percentange of individuals willing to pay *between €5 and €*10 within the experimental test were the 18-24 year-olds (73.0%).

As for the other demographic characteristics, such as education, the research found no significant differences among the different levels of education. This indicates that the hypothesis on demographic profiling (H2) does not entirely hold. This finding contrasts with that of Taylor and Boasson (2014), which states that a person who is female, progressive, and of a high level of education is predicted to have a high WTP for ethical products.

5.4.2 Implications

Although the survey was not representative in the sense that there were more women than male respondents, this study suggests the number of female consumers reported to be willing to pay a premium is greater than that of males. Had the survey been entirely representative, this means that the market for green products (when generalised) is made up of more women than men. Subject to gender bias, one could interpret this as aligned with part of the hypothesis that females are willing to pay a premium price for green products (H2).

The implications of such findings are particularly relevant in defining a target market for green products in the local scenario. For this reason, efforts in green advertising may reap more benefits if targeted towards females, rather than their male counterparts since it is assumed that the green market is made up of more female

consumers. Niche markets however, may consider targeting both genders, or even male consumers, since it was demonstrated that males are also willing to pay a premium for green products (the percentage of individuals merely is smaller). Consequently, the target market is highly dependable on the product's quality and attributes, as well as its position in the market. If a product aims to be consumed by the whole population, women should be targeted. Otherwise, men could also be considered if the units produced are smaller in quantity but perhaps more significant in terms of value.

H2 also emphasises a relatively young age and high education levels in conjunction with being female. The age group 18-24 reported the highest percentage of participants that are willing to pay *between €5 and €10*, in the experimental condition. This is more than any other age group despite younger generations typically tending to be the least wealthy out of all the age groups, as is the case in the research work carried out by Tapper and Fenna, (2019). Participants were asked to spend a hypothetical €50 offered by the researcher, however, it is assumed that individuals will value, and therefore spend their earned income in a similar way to their own. This might also indicate a trend of where the market is headed. Since the results display that younger generations favour eco-labelled products more than older generations, then this means that the market for green products may be expected to grow in the future.

The age group of 45 to 54 years or more, had the highest percentage of participants that are willing to pay the most (*more than €10*) out of all age groups in the

experimental test. This finding comes as no surprise when one assumes that being in such an age group means that the consumer is relatively wealthy (compared to other periods of one's life). Previous studies describe that wealthier consumers are willing to spend more on green items, which are viewed by many as luxury products (Taylor and Boasson, 2014; Park, 2018). Despite this, no significant differences are found for the income groups, meaning all income groups surveyed are willing to pay the same amount. For this reason, the assumption mentioned, does not hold for the subjects surveyed. Moreover, this contradicts H2, and so the hypothesis is rejected.

The implications of these findings could prove significant for producers and their marketing efforts. Target market personas may be based on such results, to obtain a favourable response to green adverts and reduce the costs of incorrect targeting. Furthermore, trends for the future market of green products may be anticipated with the results obtained. One should consider, however, whether attitudes towards green products change with demographics (possibly by age).

5.5 Conclusion

This research aimed to identify how green adverting affects individual sections of the Maltese population and in what ways it influences their purchasing behaviour. Based on a quantitative analysis of WTP concerning green consumption, it can be concluded that generally, consumers are more receptive to a product with an eco-label (as observed through the WTP) compared to the same product except it has no label. The results indicate that in general, people are willing to pay more when a product is advertised as green.

6 Conclusion

This chapter concludes this research study by verifying whether the previously set out objectives were attained. This research aimed to identify how green adverting affects certain sections of the population residing in Malta and in what ways does it influence their purchase behaviour. The researcher used quantitative analysis, and WTP as measurement against green consumption.

The initial objective intended to find out whether consumers would have a different WTP value for a green product compared to a generic product. A chi-squared test unveiled that participants exposed to the green product were considering buying much more than those shown its standard counterpart product. Furthermore, upon analysing the data, it can be concluded that people are willing to pay more when a product is advertised as green and this could have implications for both producers and policymakers. These findings can serve as evidence that consumers are more receptive to a product with an eco-label compared to one having no labels.

The second objective sought to discover if consumers in Malta are sceptical of green advertising, and if so which of its features contribute to this. The theme of green advertising credibility was explored through the experimental test which displayed an eco-labelled shampoo. The respondents' knowledge, familiarity, likeness and trustworthiness were all tested for the European eco-label for soaps, shampoos and hair conditioners. In general, most of the subjects were not familiar with the label, somewhat liked it, and only somewhat trusted that it is environmentally friendly. These

results deem the label rather ineffective. Furthermore, the majority of the participants could not decipher the EU's approval association on the eco-label. Had this been clearer, the levels of trustworthiness and general perception may have been more positive, since third-party engagement usually makes labels more credible. For this reason, the researcher puts forward a number of proposals to producers and to Government alike to increase the general public's knowledge on what eco-labels represent, possibly through marketing campaigns. In addition, a further suggestion goes to the EU to consider altering the current eco-label, to one that is clearer and more comprehensible and is ideally understood without the need for further strategic marketing campaigns. This suggestion is relevant when considering that the respondents who opted to pay the least for the green product chose to revise how much they were willing to spend (to a higher amount) once they learned what the eco-label actually represents. As a result, this could lead to a more profitable gain for the green producer, and potentially a decreased demand for products without ethical implications.

With regards to the features of green advertising that prompt scepticism, no final conclusions can be drawn from this study. This needs to be explored further within the Maltese market since the majority of the subjects tested opted to ignore the optional open-ended response which asks this. This may be due to a degree of response bias.

The final research question attempted to unveil whether a specific consumer demographic who is willing to pay a premium for a green product exists within the Maltese context. Although the results gathered are not representative of the whole

population, it can be generalised that the demographic profile who is willing to pay the middle option of *between €5 and €10* for a green shampoo is female, relatively young (18-24 years) and falls within the income bracket of €20,000 to €29,999. Further to this, participants from the Southern Harbour and individuals with a bachelor's degree were willing to pay the most (*more than €10*) for an eco-labelled shampoo.

Certainly, these findings do not reflect what individuals actually consume – or what they would purchase had this been an actual market since green products are not conventional, and standard products remain available. Rather, this study attempted to measure to what degree Maltese residents place value on the green narrative proposed. Lastly, a shampoo bottle is only product out one of an endless number of commodities available to consumers.

This research unveils the complexity surrounding green consumption. The quantitative analysis enables researchers to examine the discrete effect that ethical narratives have on a consumer's valuation of a product.

6.1 Limitations of the Study

The main limitation experienced in this research was that the primary data gathering occurred during a global pandemic, imposing restrictions on the research design, which would have otherwise been random sampling. This potentially may also have influenced how participants responded to the survey. Furthermore, what followed was

a sample not wholly representative of the population, which may be due to the nature of convenience sampling.

In their nature, surveys present the risk of social desirability bias. In order to mitigate this, the survey was both anonymous and distributed virtually. If the respondents realised the objective of the survey, this might mean that some chose to craft their feedback accordingly. As mentioned previously, an anchoring bias is also introduced by the researcher. The assumption is made that this is equal among all responders, however, thus impairing the reliability of the research.

More time and money would have also enabled more accurate data gathering, leading to a more precise dataset, and in turn higher confidence levels.

6.2 Areas for further research

There exist many elements to green consumption, and green marketing not measured in this study. Further studies should explore these, potentially focusing on different products (food, household items or even clothing), to contribute towards improving our comprehension of how value is impacted for various goods. It would also be interesting to find out whether different ethical narratives would shape consumers' WTP for the same product used in this study. Future researchers could also focus more on profiling the green consumer demographic in Malta, ideally with a representative outcome. This paper starts to expand on the ethical narrative, however, it also calls for attention to the need for a more comprehensive study of green consumption.

7 References

14% of EU citizens report exposure to pollution (2019) *05/09/2019*. Available at: https://ec.europa.eu/eurostat/web/products-eurostat-news/product/-/asset_publisher/VWJkHuaYvLIN/content/DDN-20190905-1?inheritRedirect=false&p_p_col_count=1&p_p_col_id=column-1&p_p_lifecycle=0&p_p_mode=view&p_p_state=normal&redirect=https://ec.europa.eu/e.

Abdul-Muhmin, A. G. (2007) 'Explaining consumers' willingness to be environmentally friendly', *International Journal of Consumer Studies*, 31(3), pp. 237–247. doi: 10.1111/j.1470-6431.2006.00528.x.

Ajzen, I. (1985) 'From Intentions to Actions: A Theory of Planned Behavior', in *Action Control*. doi: 10.1007/978-3-642-69746-3_2.

Anderson, R. C. and Hansen, E. N. (2004) 'Determining consumer preferences for ecolabeled forest products: An experimental approach', *Journal of Forestry*, 102(4), pp. 28–32. doi: 10.1093/jof/102.4.28.

Arce Salazar, H. and Oerlemans, L. (2016) 'Do We Follow the Leader or the Masses? Antecedents of the Willingness to Pay Extra for Eco-Products', *Journal of Consumer Affairs*, 50(2), pp. 286–314. doi: 10.1111/joca.12074.

Balderjahn I. Erfassung der Preisbereitschaft // H. Diller, A. Hermann (Eds.), Handbuch Preispolitik: Strategien -Planung -Organisation -Umsetzung, – Wiesbaden: Gabler, 2003. – pp. 387-404.

Balderjahn, I. (2003) 'Erfassung der Preisbereitschaft', in *Handbuch Preispolitik*. doi: 10.1007/978-3-322-90512-3_18.

Banerjee, S. *et al.* (1995) 'Shades of Green: A Multidimensional Analysis of Environmental Advertising', 24(2), pp. 21–31.

Bang, H. K. *et al.* (2000) 'Consumer concern, knowledge, belief, and attitude toward renewable energy: An application of the reasoned action theory', *Psychology and Marketing*. doi: 10.1002/(SICI)1520-6793(200006)17:6<449::AID-MAR2>3.0.CO;2-8.

Bickart, B. A. and Ruth, J. A. (2012) 'Green eco-seals and advertising persuasion', *Journal of Advertising*. doi: 10.1080/00913367.2012.10672457.

Bjørner, T. B., Hansen, L. G. and Russell, C. S. (2004) 'Environmental labeling and consumers' choice - An empirical analysis of the effect of the Nordic Swan', *Journal of Environmental Economics and Management*. doi: 10.1016/j.jeem.2003.06.002.

Blaikie, N. W. H. (2009) 'Designing Social Research', *Qualitative Sociology Review*.

Carlson, L. *et al.* (1993) ‘A Content Analysis of Environmental Advertising Claims : A Matrix Method Approach Stable URL : https://www.jstor.org/stable/4188888 All use subject to https://about.jstor.org/terms A Content Analysis of Environmental Advertising Claims : A Matrix Method A’, 22(3), pp. 27–39.

Cason, T. N. and Gangadharan, L. (2002) ‘Environmental labeling and incomplete consumer information in laboratory markets’, *Journal of Environmental Economics and Management*. doi: 10.1006/jeem.2000.1170.

Chen, Y. S. and Chang, C. H. (2013) ‘Greenwash and Green Trust: The Mediation Effects of Green Consumer Confusion and Green Perceived Risk’, *Journal of Business Ethics*. doi: 10.1007/s10551-012-1360-0.

Chernev, A. (2003) ‘Reverse pricing and online price elicitation strategies in consumer choice’, *Journal of Consumer Psychology*. doi: 10.1207/s15327663jcp13-1&2_05.

D’Souza, C. *et al.* (2007) ‘Green decisions: Demographics and consumer understanding of environmental labels’, *International Journal of Consumer Studies*. doi: 10.1111/j.1470-6431.2006.00567.x.

Delmas, M. A. and Burbano, V. C. (2011) ‘The drivers of greenwashing’, *California Management Review*. doi: 10.1525/cmr.2011.54.1.64.

Diamantopoulos, A. *et al.* (2003) ‘Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation’, *Journal of Business Research*. doi: 10.1016/S0148-2963(01)00241-7.

do Paço, A. M. F. and Reis, R. (2012) ‘Factors Affecting Skepticism toward Green Advertising’, *Journal of Advertising*. Routledge, 41(4), pp. 147–155. doi: 10.1080/00913367.2012.10672463.

Easterling, D., Kenworthy, A. and Nemzoff, R. (1996) ‘The Greening of Advertising: A Twenty-Five Year Look at Environmental Advertising’, *Journal of Marketing Theory and Practice*. doi: 10.1080/10696679.1996.11501714.

Elliott, R. (2013) ‘The taste for green: The possibilities and dynamics of status differentiation through “green” consumption’, *Poetics*. Elsevier B.V., 41(3), pp. 294–322. doi: 10.1016/j.poetic.2013.03.003.

Ferri, L. M. and Pedrini, M. (2018) ‘Socially and environmentally responsible purchasing: Comparing the impacts on buying firm’s financial performance, competitiveness and risk’, *Journal of Cleaner Production*. Elsevier Ltd, 174, pp. 880–888. doi: 10.1016/j.jclepro.2017.11.035.

Finisterra Do Paço, A. M., Barata Raposo, M. L. and Filho, W. L. (2009) ‘Identifying the green consumer: A segmentation study’, *Journal of Targeting, Measurement and Analysis for Marketing*. doi: 10.1057/jt.2008.28.

Gaski, J. F. and Etzel, M. J. (1986) ‘The Index of Consumer Sentiment toward Marketing’, *Journal of Marketing*. doi: 10.2307/1251586.

Gertz, R. (2005) ‘Eco-labelling—a case for deregulation?’, *Law, Probability and Risk*, 4(3), pp. 127–141. doi: 10.1093/lpr/mgi010.

Ghauri, P., Grønhaug, K. and Strange, R. (2020) *Research Methods in Business Studies*, *Research Methods in Business Studies*. doi: 10.1017/9781108762427.

Grove, S. J. and Kangun, N. (1993) ‘A content analysis of environmental advertising claims: A matrix method approach les carlson’, *Journal of Advertising*. doi: 10.1080/00913367.1993.10673409.

Guagnano, G. A., Stern, P. C. and Dietz, T. (1995) ‘Influences on Attitude-Behavior Relationships: A Natural Experiment with Curbside Recycling’, *Environment and Behavior*. doi: 10.1177/0013916595275005.

Hahsler, M. (2015) ‘A Review of Methods for Measuring Willingness to Pay’, (January 2014).

Halverson, R. (2018) *CU Scholar Consumer Perceptions of Greenwashing: Understanding Awareness, Trust, and Effectiveness*. Available at:

https://scholar.colorado.edu/honr_theseshttps://scholar.colorado.edu/honr_theses/1731.

Hanna, N. *et al.* (1995) 'Cost-oriented Pricing', in *Pricing*. doi: 10.1007/978-1-349-14477-8_5.

Hassan, S. & Vandermerwe, S. (1994) A Global View of 'Green Marketing' in Global Marketing Perspectives and Cases by S., Hassan & R., Black- well. The Dryden Press – Harcourt Brace & Co., Fortworth, Texas, 101– 118.

Haytko, D. L. and Matulich, E. (2008) 'Green advertising and environmentally responsible consumer behaviors: Linkages examined', *Journal of Management and Marketing Research*. doi: Article.

Hopkins, M. and Roche, J. (2019) 'Socially responsible investment (SRI)', in *CSR and Sustainability*. doi: 10.4324/9781351284646-13.

Huang, C. L., Kan, K. and Fu, T. T. (1999) 'Consumer willingness-to-pay for food safety in Taiwan: A binary-ordinal probit model of analysis', *Journal of Consumer Affairs*, 33(1), pp. 76–91. doi: 10.1111/j.1745-6606.1999.tb00761.x.

Iyer, E. and Banerjee, B. (1993) 'Anatomy of Green Advertising', *Advances in Consumer Research*.

Johannesson, P. *et al.* (2014) ‘Research Strategies and Methods’, in *An Introduction to Design Science*. doi: 10.1007/978-3-319-10632-8_3.

Khandelwal, U. and Bajpai, N. (2011) ‘A Study on Green Advertisement and its Impact on Consumer Purchase Intention’, *Journal of Creative Communications*, 6(3), pp. 259–276. doi: 10.1177/0973258613491661.

Kok, G. and Siero, S. (1985) ‘Tin recycling: Awareness, comprehension, attitude, intention and behavior’, *Journal of Economic Psychology*. doi: 10.1016/0167-4870(85)90019-4.

Krafft, J. (2014) ‘Greenwashing’.

Laufer, W. S. (2003) ‘Social Accountability and Corporate Greenwashing’, *Journal of Business Ethics*, 43(3), pp. 253–261. doi: 10.1023/A:1022962719299.

Leonidou, C. N. and Skarmeas, D. (2017) ‘Gray Shades of Green: Causes and Consequences of Green Skepticism’, *Journal of Business Ethics*. Springer Netherlands, 144(2), pp. 401–415. doi: 10.1007/s10551-015-2829-4.

Leonidou, L. C. *et al.* (2011) ‘Evaluating the green advertising practices of international firms: A trend analysis’, *Studies in Economics and Finance*. doi: 10.1108/02651331111107080.

Leung, S. O. (2011) ‘A comparison of psychometric properties and normality in 4-, 5-, 6-, and 11-point likert scales’, *Journal of Social Service Research*. doi: 10.1080/01488376.2011.580697.

Lohr, L. (1998) ‘Implications of Organic Certification for Market Structure and Trade’, *American Journal of Agricultural Economics*. doi: 10.2307/1244216.

Loureiro, M. L. and Hine, S. (2004) ‘Preferences and willingness to pay for GM labeling policies’, *Food Policy*. doi: 10.1016/j.foodpol.2004.07.001.

Loureiro, M. L., McCluskey, J. J. and Mittelhammer, R. C. (2002) ‘Will consumers pay a premium for eco-labeled apples’, *Journal of Consumer Affairs*. doi: 10.1111/j.1745-6606.2002.tb00430.x.

Louviere JJ., Hensher D.A., Swait J.D. Stated Choice Methods: Analysis and Application. – Cambridge: Cambridge University Press, 2000.

Marbeau Y. What Value Pricing Research today? // Journal of the Market Research Society, 1987 – No 29(2). – pp. 153-182.

Matthes, J., Wonneberger, A. and Schmuck, D. (2014) ‘Consumers’ green involvement and the persuasive effects of emotional versus functional ads’, *Journal of Business Research*. doi: 10.1016/j.jbusres.2013.11.054.

Mazar, N. and Zhong, C. B. (2010) ‘Do green products make us better people?’, *Psychological Science*. doi: 10.1177/0956797610363538.

Mellon, J. and Prosser, C. (2017) ‘Twitter and Facebook are not representative of the general population: Political attitudes and demographics of british social media users’, *Research and Politics*, 4(3), pp. 1–9. doi: 10.1177/2053168017720008.

Milne, J., 1999. Questionnaires: Advantages and Disadvantages.

Mo, Z., Liu, M. T. and Liu, Y. (2018) ‘Effects of functional green advertising on self and others’, *Psychology and Marketing*, 35(5), pp. 368–382. doi: 10.1002/mar.21092.

Mohr, L. A., Eroğlu, 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), pp. 30–55. doi: 10.1111/j.1745-6606.1998.tb00399.x.

Moisander, J. (2007) ‘Motivational complexity of green consumerism’, *International Journal of Consumer Studies*. doi: 10.1111/j.1470-6431.2007.00586.x.

Moon, W. and Balasubramanian, S. K. (2003) ‘Willingness to Pay for Non-biotech Foods in the U.S. and U.K.’, *Journal of Consumer Affairs*, 37(2), pp. 317–339. doi: 10.1111/j.1745-6606.2003.tb00456.x.

Muska, A. (1999) The challenge of independent corporate environmental performance evaluation. In Environmental Management and Business Strategy (ed. by B. Piasecki, K. Fletcher & F. Mendelson), pp. 323–325. John Wiley and Sons, London.

Naess, A. (1973) 'The Shallow and the Deep, Long-Range Ecology Movement: A Summary', *Inquiry (United Kingdom)*. doi: 10.1080/00201747308601682.

Gourley, D. and Nagle, T. T. (1988) 'The Strategy and Tactics of Pricing', *Journal of Marketing*. doi: 10.2307/1251457.

National Statistics Office (NSO) (2019) 'Regional Statistics Malta - 2020 Edition', *National Statistics Office, Malta*, p. 304. Available at: https://nso.gov.mt/en/publicatons/Publications_by_Unit/Documents/02_Regional_Statistics_(Gozo_Office)/Regional Statistics MALTA 2017 Edition.pdf.

National Statistics Office (NSO) (2019) 'World Population Day: 2019, News Release 108/2019, 10 July 2019', (July). Available at: https://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_C5/Population_and_Migration_Statistics/Documents/2019/News2019_108.pdf.

Nessim H., Dodge R. Pricing-Policies and Procedures. – London: MacMillan Press, 1995.

Newell, S. J., Goldsmith, R. E. and Banzhaf, E. J. (1998) 'The Effect of Misleading Environmental Claims on Consumer Perceptions of Advertisements', *Journal of Marketing Theory and Practice*. doi: 10.1080/10696679.1998.11501795.

Obermiller, C., Spangenberg, E. and MacLachlan, D. L. (2005) 'Ad skepticism: The consequences of disbelief', *Journal of Advertising*. doi: 10.1080/00913367.2005.10639199.

Okada, E. M. and Mais, E. L. (2010) 'Framing the "Green" alternative for environmentally conscious consumers', *Sustainability Accounting, Management and Policy Journal*. doi: 10.1108/20408021011089257.

Park, K. C. (2018) 'Understanding ethical consumers: willingness-to-pay by moral cause', *Journal of Consumer Marketing*, 35(2), pp. 157–168. doi: 10.1108/JCM-02-2017-2103.

Peattie, K. (2010) 'Green Consumption: Behavior and Norms', *Annual Review of Environment and Resources*. doi: 10.1146/annurev-environ-032609-094328.

Rahbar, E. and Wahid, N. A. (2011) 'Investigation of green marketing tools' effect on consumers' purchase behavior', *Business Strategy Series*, 12(2), pp. 73–83. doi: 10.1108/17515631111114877.

Robinson, S. and Wood, S. (2018) ‘A “good” new brand — What happens when new brands try to stand out through corporate social responsibility’, *Journal of Business Research*. doi: 10.1016/j.jbusres.2018.07.031.

Ross, J. K., Patterson, L. T. and Stutts, M. A. (1992) ‘Consumer perceptions of organizations that use cause-related marketing’, *Journal of the Academy of Marketing Science*. doi: 10.1007/BF02723480.

Royne, M. B., Levy, M. and Martinez, J. (2011) ‘The public health implications of consumers’ environmental concern and their willingness to pay for an eco-friendly product’, *Journal of Consumer Affairs*. doi: 10.1111/j.1745-6606.2011.01205.x.

Sammer, K. and Wüstenhagen, R. (2006) ‘The influence of eco-labelling on consumer behaviour - Results of a discrete choice analysis for washing machines’, *Business Strategy and the Environment*. doi: 10.1002/bse.522.

Savino, E. A. (2009) *Placement of sensitive and nonsensitive demographic questions: An empirical study*, *ProQuest Dissertations and Theses*.

Schaffner, A. and Lindsey, J. K. (2000) ‘Revealing Statistical Principles’, *The American Statistician*. doi: 10.2307/2685596.

Shamdasani, P., Chon-Lin, G. O. and Richmond, D. (1993) ‘Exploring Green Consumers in an Oriental Culture: Role of Personal and Marketing Mix Factors’, *Advances in Consumer Research*.

Sheehan, K. and Atkinson, L. (2012) ‘Special issue on green advertising’, *Journal of Advertising*. doi: 10.1080/00913367.2012.10672453.

Shrum, L. J., McCarty, J. A. and Lowrey, T. M. (1995) ‘Buyer characteristics of the green consumer and their implications for advertising strategy’, *Journal of Advertising*. doi: 10.1080/00913367.1995.10673477.

Spann, M., Skiera, B. and Schäfers, B. (2004) ‘Measuring individual frictional costs and willingness-to-pay via name-your-own-price mechanisms’, *Journal of Interactive Marketing*. doi: 10.1002/dir.20022.

Stern, P. C. (1999) ‘Information, incentives, and proenvironmental consumer behavior’, *Journal of Consumer Policy*. doi: 10.1023/A:1006211709570.

Stokes, S. A. (2007) ‘Deception in Environmental Advertising: Consumers’ Reactions To Greenwashing’, *Master Thesis*, p. 59. Available at: http://krex.k-state.edu/dspace/bitstream/2097/1462/1/StaciStokes2009.pdf.

Straughan, R. D. and Roberts, J. A. (1999) ‘Environmental segmentation alternatives: A look at green consumer behavior in the new millennium’, *Journal of Consumer Marketing*. doi: 10.1108/07363769910297506.

Sønderskov, K. M. and Daugbjerg, C. (2011) ‘The state and consumer confidence in eco-labeling: Organic labeling in Denmark, Sweden, The United Kingdom and The United States’, *Agriculture and Human Values*, 28(4), pp. 507–517. doi: 10.1007/s10460-010-9295-5.

Tapper, A. and Fenna, A. (2019) ‘The Relationship between Income, Wealth and Age in Australia’, *Australian Economic Review*, 52(4), pp. 393–405. doi: 10.1111/1467-8462.12326.

Taylor, J. E. and Boasson, V. (2014) ‘Who buys fair trade and why (or Why Not)? A random survey of households’, *Journal of Consumer Affairs*. doi: 10.1111/joca.12025.

TerraChoice (2009) *The Seven Sins of Greenwashing*, *Environmental Claims in Consumer Markets*.

Uncles, M. D., Ben-Akiva, M. and Lerman, S. R. (1987) ‘Discrete Choice Analysis: Theory and Application to Travel Demand.’, *The Journal of the Operational Research Society*. doi: 10.2307/2582065.

Urban, G. and Hauser, J. (1993) ‘Design and Marketing New Products’, *Prentice Hall*.

Vanhamme, J. and Grobben, B. (2009) ‘“too good to be true!”. the Effectiveness of CSR history in countering negative publicity’, *Journal of Business Ethics*. doi: 10.1007/s10551-008-9731-2.

Vlosky, R. P., Ozanne, L. K. and Fontenot, R. J. (1999) ‘A conceptual model of US consumer willingness-to-pay for environmentally certified wood products’, *Journal of Consumer Marketing*, 16(2), pp. 122–136. doi: 10.1108/07363769910260498.

Wertenbroch, K. and Skiera, B. (2002) ‘Measuring consumers’ willingness to pay at the point of purchase’, *Journal of Marketing Research*. doi: 10.1509/jmkr.39.2.228.19086.

Yazdanifard, R. and Mercy, I. E. (2011) ‘The impact of Green Marketing on Customer satisfaction and Envi- ronmental safety’, *International Conference on Computer Communication and Management*, 5(January 2011), pp. 637–641.

Yi, Y. (1990) ‘Cognitive and affective priming effects of the context for print advertisements’, *Journal of Advertising*, 19(2), pp. 40–48. doi: 10.1080/00913367.1990.10673186.

Youn, S. and Kim, H. (2008) ‘Antecedents of consumer attitudes toward cause-related marketing’, *Journal of Advertising Research*. doi: 10.2501/S0021849908080136.

Young, W. *et al.* (2010) ‘Sustainable consumption: Green consumer behaviour when purchasing products’, *Sustainable Development*. doi: 10.1002/sd.394.

Zhong, X. Z. *et al.* (2010) ‘Monomeric indole alkaloids from the aerial parts of Catharanthus roseus’, *Yaoxue Xuebao*, 45(4), pp. 471–474.

Zukin, S. and Maguire, J. S. (2004) ‘Consumers and Consumption’, *Annual Review of Sociology*. doi: 10.1146/annurev.soc.30.012703.110553.

Appendix A - Survey

Introduction

Dear participant, I am Angele Farrugia, a Master of Science in Strategic Management and Digital Marketing student within the Faculty of Economics, Management and Accountancy (FEMA) at the University of Malta. I am presently conducting research, under the supervision of Ms. Kora Muscat and Dr Emanuel Said in the process of writing my dissertation, entitled 'Green advertising credibility and the link between willingness to pay and green consumption'.

I would like to invite you to contribute to my research by kindly answering this survey, which should take around 10 minutes to complete.

The questions will relate to the consumption of a product, where you will be asked some general information with regards to this. You will also be asked a number of general questions unrelated to the product being considered. Whilst you may opt not to answer some questions, faithful answers would be of great help to my research results.

Although the product might be similar to others on the market, please note that it is not currently available for sale. This research is independent of any existing products/ brands which you might be familiar with.

I thank you in advance for your time and valued help.

Sincere regards,
Angele Farrugia

By ticking the below consent box, you are confirming that you are 18 years of age or older and would like to participate in the survey. Kindly be are aware that:

- The data I will collect will be anonymised. I will not be able to specifically identify you as a respondent in any way and will collect no information that will allow me to do so.
- All information collected will be used solely and expressly in the process of extracting results for my dissertation research.
- Such data will only be accessible to myself as the researcher, and potentially, my supervisors.
- Should you for any reason change your mind and not want your responses to be recorded and shared with me, you can opt out at any point during the survey.

I accept to participate in this survey

○ Yes

○ No

---

1. How old are you?

- ○ Under 18
- ○ 18-24
- ○ 25 - 34
- ○ 35 - 44
- ○ 45 - 54
- ○ 55 - 64
- ○ 65 +

2. Do you currently live in Malta?

- ○ Yes
- ○ No

3. For the intents of this survey, imagine you are being given €50 to spend. What would you buy with this money if you could spend it on anything you want?

_____

Imagine you are currently out of shampoo, and you're at a supermarket shopping for it. You pass a shelf of basic shampoo (as pictured), which costs €7 each. The shampoo is suitable for all hair types.



4. To what extent do you consider the shampoo above:

	Not at all	A little	Somewhat	Mostly	Very
Appealing	○	○	○	○	○
Informative	○	○	○	○	○
High Quality	○	○	○	○	○

5. To best of your knowledge, how environmentally friendly do you consider this shampoo?

- ○ Not at all
- ○ Slightly
- ○ Somewhat
- ○ Very
- ○ Extremely

6. Why?

_____

7. Which factor/s is/are most important to you when buying products like shampoo or similar? (You may select more than one answer)

- ☐ Price
- ☐ Quality
- ☐ Brand
- ☐ Ingredients
- ☐ Packaging
- ☐ Promotion

8. Given you didn't spend the €50 provided, would you consider buying this shampoo using the money? (Not necessarily all of it)

- ○ Yes
- ○ Maybe
- ○ No

9. Why?

_____

10. How much money, out of the €50, would you be willing to spend on this product?

- ○ Less than €5
- ○ Between €5 and €10
- ○ More than €10

Imagine you are currently out of shampoo, and you're at a supermarket shopping for it. You pass a shelf of basic shampoo, with bottles that cost €7 each. The shampoo is suitable for all hair types. Next, you see a shampoo bottle that looks identical to the €7 one, but the packaging indicates that it is green (as pictured).



4. To what extent do you consider the shampoo:

	Not at all	A little	Somewhat	Mostly	Very
Appealing	○	○	○	○	○
Informative	○	○	○	○	○
High Quality	○	○	○	○	○

5. To the best of your knowledge, how environmentally friendly do you consider this shampoo?

- ○ Not at all
- ○ Slightly
- ○ Somewhat
- ○ Very
- ○ Extremely

6. Why?

_____

7. Which factor/s is/are most important to you when buying products like shampoo or similar? (You may select more than one answer)

- ☐ Price
- ☐ Quality
- ☐ Brand
- ☐ Ingredients
- ☐ Packaging
- ☐ Promotion

8. What do you understand by the label on the product above?

_____

9. How much you do you like or dislike the label on the shampoo?

- ○ Like a great deal
- ○ Like a moderate amount
- ○ Like a little
- ○ Neither like nor dislike
- ○ Dislike a little
- ○ Dislike a moderate amount
- ○ Dislike a great deal

10. How familiar are you with the label on the product?

- ○ Extremely familiar
- ○ Very familiar
- ○ Moderately familiar
- ○ Slightly familiar
- ○ Not familiar at all

11. To what extent do you trust that this product is environmentally-friendly?

- ○ Not at all
- ○ Slightly
- ○ Somewhat
- ○ Very
- ○ Extremely

12. Given you didn't spend the €50 provided, would you consider buying this shampoo using the money? (Not necessarily all of it)

- ○ Yes
- ○ Maybe
- ○ No

13. Why?

_____

14. How much money, out of the €50, would you be willing to spend on this product?

- ○ Less than €5
- ○ Between €5 and €10
- ○ More than €10

The label on the shampoo bottle was the European eco-label for soaps, shampoos and hair conditioners. Once the label is on a product, it guarantees:

- Lower impact on the aquatic environment
- Limited use of dangerous substances
- High standards of biodegradability
- Limited packaging waste
- High level of performance

15. Now that the label is clearly defined, do you want to revise how much money, out of the €50, you would be willing to spend on this product?

- ○ No
- ○ If so, to how much? _____

Characteristics and Demographics

16. To what extent do you identify as an environmentalist?

- ○ Not at all
- ○ Slightly
- ○ Somewhat
- ○ Mostly
- ○ Completely

17. When purchasing products in general, how often do you look for more environmentally-friendly alternatives?

- ○ Never
- ○ Rarely ever
- ○ Sometimes
- ○ Often
- ○ Almost always

18. What is your gender

- ○ Male
- ○ Female
- ○ Prefer not to say

19. What is your annual income?

- ○ Less than €10000
- ○ €10000 to €19999
- ○ €20000 to €29999
- ○ €30000 to €39999
- ○ €40000 to €49999
- ○ €50000 to €59999

- ○ €60000 or more

20. What is the highest level of education you have completed?

- ○ Primary school
- ○ Secondary school
- ○ Post-secondary school
- ○ Bachelor's Degree
- ○ Master's Degree or higher

21. Where is your area of residence in Malta?

- ○ Southern Harbour (Cospicua, Fgura, Floriana, Luqa, Żabbar, Kalkara, Marsa, Paola, Santa Luċija, Senglea, Tarxien, Valletta, Vittoriosa, Xgħajra)
- ○ Northern Harbour (Birkirkara, Gżira, Ħamrun, Msida, Pembroke, Pieta, Qormi, San Ġwann, Santa Venera, Sliema, St Julian’s, Swieqi, ta’ Xbiex)
- ○ South Eastern (Birżebbuġa, Għaxaq, Gudja, Kirkop, Marsaskala, Marsaxlokk, Mqabba, Qrendi, Safi, Żejtun, Żurrieq)
- ○ Western (Attard, Balzan, Dingli, Iklin, Lija, Mdina, Mtarfa, Rabat, Siġġiewi, Żebbuġ)
- ○ Northern (Għargħur, Mellieħa, Mġarr, Mosta, Naxxar, St. Paul’s Bay)
- ○ Gozo

Appendix B - Results

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Appealing	.192	280	.000	.891	280	.000
HighQuality	.196	280	.000	.868	280	.000
Informative	.187	280	.000	.886	280	.000

a. Lilliefors Significance Correction

Figure 24 - Shapiro-Wilk Test

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Appealing is the same across categories of Groups.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.
2	The distribution of HighQuality is the same across categories of Groups.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.
3	The distribution of Informative is the same across categories of Groups.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .050.

Figure 25 - Non-Parametric Tests