VILNIUS UNIVERSITY
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DIGITAL MARKETING

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THE FINAL MASTER'S THESIS

ŽALIŲJŲ REKLAMOS ELEMENTŲ ĮTAKA APLINKAI DRAUGIŠKAM VARTOTOJŲ ELGESIUI SKAITMENINĖJE APLINKOJE	**THE IMPACT OF GREEN ADVERTISING ELEMENTS ON CONSUMER ECO-FRIENDLY CHOICE BEHAVIOR IN THE DIGITAL ENVIRONMENT**

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The impact of green advertising elements on consumers' eco-friendly purchase intention in the digital environments / Goodness Todiesonume Preye, supervisor Indre Razbadauskaite-Venske, PhD; Vilnius University Business School. – Vilnius, 2025. – 95 p. (approx. 179,097 characters): 14 tables. – Literature sources: p. 64-76 (143 references).

Keywords: green advertising, digital environment, consumer behaviour, eco-friendly purchase intention, cross-cultural comparison, eco-labels, trust, greenwashing, Nigeria, Lithuania.

SUMMARY

This master's thesis examines the effectiveness of certain green advertising elements on consumers' green purchase intention in a digital environment and compares cross-cultural studies in Nigeria and Lithuania. The study focuses on five elements: eco-labels, message formulation, nature imagery, emotional appeal, and company credibility, using an integrated theoretical perspective from the theory of planned behaviour, the development probability model, and the value-belief-norm theory. The results of a quantitative survey, which included 219 Nigerian and 129 Lithuanian respondents, showed that all five elements have a significant and positive influence on purchase intention in both countries. Nevertheless, the analysis revealed significant cultural differences: in Nigeria, eco-labels became the most significant predictor, while in Lithuania, emotional appeal did. Demographic factors such as age, gender, income, and education did not influence the relationship between advertising elements and intentions in both countries, indicating that well-crafted green appeals are clearly felt across all consumer groups in the country. An important cross-cultural observation was that Lithuanian consumers expressed significantly stronger green purchase intention and positive attitudes towards all aspects of advertising than their Nigerian counterparts. The study highlights that trust and corporate credibility are essential elements that enhance the effectiveness of all other advertising elements and are a vital safeguard against greenwashing scepticism in the digital environment. The study results suggest that marketers should employ integrated communication approaches, combining compelling and fact-based arguments with emotionally appealing narratives, while emphasising transparency and verifiable claims to build consumer trust. Advertising campaigns should be culturally relevant, and policymakers should tighten regulation and standardise eco-labelling practices to ensure consumer trust and promote sustainable consumption.

Žaliosios reklamos elementų įtaka vartotojų ekologiško pasirinkimo elgsenai skaitmeninėje aplinkoje / Goodness Preye, vadovė Dr. Indrė Razbadauskaitė-Venskė; VšĮ verslo mokykla. – Vilnius, 2025. – 95 p. (apie 179,097 spaudos ženklų): 14 lentelių. – Literatūros šaltiniai: p. 64-76 (143 nuorodos).

Raktiniai žodžiai: žalioji reklama, skaitmeninė aplinka, vartotojų elgsena, ekologiško pirkimo ketinimas, kultūrų palyginimas, ekologiniai ženklai, pasitikėjimas, žaliųjų kalbų lavinimas, Nigerija, Lietuva.

SANTRAUKA

Šiame magistro darbe nagrinėjamas tam tikrų žaliosios reklamos elementų veiksmingumas vartotojų ekologiškam pirkimo ketinimui skaitmeninėje aplinkoje ir atliekamas kultūrų tyrimų Nigerijoje ir Lietuvoje palyginimas. Tyrime daugiausia dėmesio skiriama penkiems elementams: ekologiniams ženklams, žinutės formulavimui, gamtos vaizdiniams, emociniam patrauklumui ir įmonės patikimumui, naudojant integruotą teorinę planuoto elgesio teorijos, išplėtojimo tikimybės modelio ir vertybių-įsitikinimų-normų teorijos perspektyvą. Kiekybinės apklausos, kurioje dalyvavo 219 Nigerijos ir 129 Lietuvos respondentų, rezultatai parodė kad visi penki elementai daro reikšmingą ir teigiamą įtaką pirkimo ketinimui abiejose šalyse. Nepaisant to, analizė atskleidė reikšmingus kultūrinius skirtumus: Nigerijoje reikšmingiausiu prognozuojančiu veiksniu tapo ekologiniai ženklai, o Lietuvoje, emocinis patrauklumas padarė. Tokie demografiniai veiksniai kaip amžius, lytis, pajamos ir išsilavinimas neturėjo įtakos reklamos elementų ir ketinimų santykiui abiejose šalyse, o tai rodo, kad gerai suformuluoti ekologiški patrauklumai aiškiai jaučiami visose šalies vartotojų grupėse. Svarbus tarpkultūrinis pastebėjimas buvo tas, kad Lietuvos vartotojai išreiškė daug stipresnį ekologiško pirkimo ketinimą ir teigiamą požiūrį į visus reklamos aspektus nei jų kolegos Nigerijoje. Tyrime pabrėžiama, kad pasitikėjimas ir įmonių patikimumas yra esminiai elementai, kurie sustiprina visų kitų reklamos elementų efektyvumą ir yra gyvybiškai svarbi apsauga nuo žaliojo plovimo skepticizmo skaitmeninėje aplinkoje. Tyrimo rezultatai leidžia teigti, kad rinkodaros specialistai turėtų taikyti integruotus komunikacijos metodus, derindami įtikinamus ir faktais pagrįstus argumentus su emociškai patraukliais pasakojimais, kartu akcentuodami skaidrumą ir patikrinamus teiginius vartotojų pasitikėjimui stiprinti. Reklamos kampanijos turėtų būti kultūriškai aktualios, o politikos formuotojai – sugriežtinti reguliavimą ir standartizuoti ekologinio ženklinimo praktiką, siekiant užtikrinti vartotojų pasitikėjimą ir skatinti tvarų vartojimą

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INTRODUCTION

Growing concerns regarding climate change, natural resource scarcity, and environmental destruction have galvanised global attention to sustainable consumption. Responding, firms are adopting green marketing and green advertising as instruments to convey their environmental corporate responsibility and encourage pro-environmental consumer behaviour (Sharma, 2021; Majeed et al., 2022). While conventional ads often emphasise price, quality, and brand name, green ads take notice of the eco-advantages and sustainable production processes, as well as corporate social responsibility (García-Salirrosas & Rondon-Eusebio, 2022; Obaid & Rashid, 2024).

With the rise of digital channels, green marketing has progressed stepwise from traditional channels to active digital platforms. Digital channels, such as social networks, allow companies to communicate targeted environmental claims, foster consumer interaction, and obtain instant feedback (Sun et al., 2025; Palmieri et al., 2024). This shift, however, has also introduced enhanced scrutiny of ad claims, as consumers are now immediately capable of substantiating facts, detecting inconsistencies, and being suspicious of issues regarding credibility as well as greenwashing (Schmuck et al., 2018; Verleye et al., 2023).

Empirical study documents that advertising ingredients, including nature images, explicit and implied environmental statements, emotional appeals, and corporate transparency, as well as eco-labels, determine consumer attitudes together with purchase intentions (Carrión-Bósquez et al., 2024; Mallick et al., 2024). Despite the expressed intention among consumers to purchase sustainable goods, there still exists an "intention–behaviour gap". Owing to the price sensitivity and distrust regarding green statements, together with limited product availability, intentions do not undergo conversion into actual purchases (Sharma, 2021; Witek & Kuźniar, 2023).

Further, consumer reactions to green advertising vary. Literature reveals that demographic factors like age, gender, education, and income, as well as culture, significantly moderate purchase intentions (Kumar et al., 2024; Witek & Kuźniar, 2020). Younger customers, i.e., Gen Z, as well as Millennials, are positively disposed to green advertising, although cultural situations determine the perception regarding eco-labels as well as environmental appeals (Casalegno et al., 2022; Nguyen-Viet & Nguyen, 2024). In spite of this, there is limited literature that has analysed digital green promotions among developing nations, i.e., Africa, where diversity regarding demography as well as cultural heterogeneity potentially varies the customers' response (Agarwal & Kumar, 2020; Nekmahmud & Fekete-Farkas, 2020).

In this context, the current research addresses the influence of green advertisement on consumer environmentally friendly decision-making behaviour in digital spaces. It concentrates on Nigeria, a rising African market, and contrasts it with Lithuania, a country in Europe, so as to gain a multicultural insight into the ways in which green advertisement aspects influence consumer awareness, trust, and purchase intentions.

Problem Statement

Despite increasing recognition of the imperative of sustainable consumption, significant challenges continue in aligning consumer attitudes with actual purchase behaviour. On one hand, the long-lasting intention–behaviour gap thwarts the behavioural influence of green advertisements, as consumers routinely report aspirations to buy green product ranges yet do not do so due to perceived high expenses, limited access, and distrust of environmental statements (Sharma, 2021; Witek & Kuźniar, 2023). On the other hand, trust remains a critical issue. Bogus statements and greenwash undermine consumer trust, thereby affecting the effectiveness of eco-labels and appeals based on emotions, as well as other ingredients used in advertisements (Schmuck et al., 2018; Szabo & Webster, 2020).

Third, most green advertising studies have originated in the developed world, leaving a gap in the literature as to how the consumers of developing economies, such as those in Nigeria, would respond to digital green advertisements (Agarwal & Kumar, 2020; Rathee & Milfeld, 2023). This situational lack of knowledge is troubling since demographical as well as cultural factors significantly determine the response to green appeals (Nguyen-Viet & Nguyen, 2024; Kolović et al., 2023). Fourth, previous research also disproportionately addresses the use of a single ad cue, without regard to the interaction between the interaction factors, such as eco-labels, imagery, and emotional appeals, as well as corporate believability, that would be a more accurate predictor of consumer behaviour (Lima et al., 2023; Goyal et al., 2025).

If these gaps are not filled, both practice and theory in green advertising will be incomplete. Companies will risk developing campaigns that do not transform consumers. intentions into sustainable consumption behaviour, while policymakers do not have evidence-based strategies to control false claims and encourage environmental responsibility.

Aim: To investigate how green advertising elements and demographic factors influence consumers' eco-friendly purchase intentions, with a focus on identifying the most impactful elements.

Objectives

1. To examine consumers' perceptions of key green advertising elements in the digital environment.
2. To analyse the role of demographic factors in shaping eco-friendly purchase intentions.
3. To assess the direct impact of green advertising elements on consumers' eco-friendly purchase intention.
4. To identify which green advertising elements contribute most strongly to consumers' eco-friendly purchase intentions.

Scope of Study

This thesis aims to study the impact of green advertising factors on consumer pro-environmental choice behaviour in the online environment. The paper investigates five of the strongest advertising factors mentioned in literature: eco-labels, nature pictures, explicit vs. implicit claims, emotional and moral appeals, and corporate credibility (Schmuck et al., 2018; Verleye et al., 2023). The thesis also investigates the moderator role of demographic variables like age, sex, education, income, and cultural environment [IR6] operationalised through country context (Nigeria vs. Lithuania) (Kumar et al., 2024; Witek & Kuźniar, 2020).

Geographically, the research is confined to a comparison between Lithuania and Nigeria. Nigeria is a developing African nation where digital green advertising and its effect have not been actively documented yet, while Lithuania is an environment in Europe with a highly developed culture of sustainability. Through these two environments, the research aims to capture cultural and demographic variations that can affect consumer interpretation and behaviour.

The scope is not extended to fields of green marketing such as sustainable production, environmental management of business, or policy interventions. It is narrowed down to internet advertising and its impact on the purchasing intentions and actions of consumers.

Significance of the study

This research is of application as well as theoretical importance. Theoretically, it contributes to green advertising literature by filling some gaps identified in it. By integrating the Theory of Planned Behaviour (Ajzen, 1991), Value-Belief-Norm Theory (Stern et al., 1999) and Elaboration Likelihood Model (Petty & Cacioppo, 1986) among its variables, this work provides a multi-dimensional account of how green advertising leads to attitudes, intentions, and behaviour. Additionally, considering the cross-cultural comparison of Lithuania and Nigeria, it

provides a supplement to understanding demographic and cultural differences in consumer reaction (Zaremohzzabieh et al., 2020; Mishra & Kaur, 2023).

As a result of the gaps identified in the literature, this study's emphasis would be directed towards digital advertising in emerging markets like Africa, which has been largely understudied in terms of green advertising and its impact on consumer behaviour. In the same vein, a cross-comparative demographics study between two countries (Lithuania & Nigeria) will be conducted, with the focus of understanding the interaction effects between two or more green advertising elements to advance theory and practice in this field.

In practice, the study provides useful insights to marketers and firms that aim to create efficient green digital advertising campaigns. Understanding what advertising variables promote belief and facilitate scepticism relief will allow firms to create campaigns that aim to reach different customer types and promote environmentally friendly consumption behaviour (Majeed et al., 2022; Tan et al., 2022). For policymakers and regulators, evidence informs the implementation of tighter rules governing advertising and consumer protection policymaking through consumers' perceptions of green labels, environmental claims, and greenwashing (Szabo & Webster, 2020; Pham & Barretta, 2024).

Lastly, this study is beneficial to society as it stimulates responsible consumption patterns. By ascertaining how the intention-behaviour gap could be eliminated and how consumer trust in environmental communications could be strengthened, this work is part of the overall environmental missions of safeguarding ecosystems, lessening waste, and developing a sustainable world economy.

Methods Used

Analysis of Scientific Literature – This approach was used to build a theoretical basis for the work by conducting a review of past studies on green advertising and consumer green behaviour. An analysis of how advertising stimuli (eco-labels, nature scenery, explicit/implicit communications, appeals through emotions, and corporate believability) affect consumer trust, awareness, and purchase determinations was done through this approach. Additionally, the review featured theoretical frameworks such as the Theory of Planned Behaviour (TPB) and the Elaboration Likelihood Model (ELM) that are commonly used in consumer purchase behaviour studies. This step provided an intellectual basis upon which to build the research model and empirical testing.

Questionnaire Research – To gather primary data, a structured questionnaire form was prepared and administered through online platforms through Google Forms. The survey recorded consumer attitudes, levels of trust, and reactions to green advertising stimuli in two

cultural situations: Nigeria and Lithuania. The sampling design focused on respondents active in online consuming environments to make it more pertinent to the aims of this study.

Statistical Data Analysis – The data collected were analysed through IBM SPSS software. Analysis incorporated reliability testing (Cronbach's alpha) on measurement instruments, regression analysis, mediation and moderation testing, as well as Pearson's correlation to determine associations among green advertising aspects, attitudes of the consumer, and buying intention. Microsoft Excel further served to present and format raw data to be suitable for statistical analysis.

Structure of the Thesis

This master's thesis will consist of three main parts: Theoretical Literature Review – This part integrates literature on green advertising as well as consumer behaviour. It discusses green advertising development and distinctions from traditional advertising and the effect of digitalisation. This part will further discuss important advertising factors, green purchase intentions of consumers, the intention–behaviour gap, demographic effects, as well as cross-cultural issues. Finally, it will discuss literature gaps that make up the rationale of empirical work.

Research Methodology – This part will present the empirical design of the study, including the conceptual model, survey tool, sampling method, and data collection technique, along with the statistical methods that would be employed in the analysis.

Empirical Analysis and Results – This part presents and explains the empirical study results. It presents a statistical analysis of how green advertising factors affect consumer green product purchase intentions, whether demographics play a moderating role, and cross-cultural variations in respondents from Nigeria and Lithuania. These results are then explained against the literature reviewed and the conceptual frameworks.

The study is concluded by research findings and implications that present both intellectual contributions to green online advertising research as well as practitioner advice to businesses and policymakers aiming to create believable, culturally sensitive, and efficient green ad campaigns.

In preparing this master’s thesis, the author utilised generative artificial intelligence solely to enhance language clarity and presentation. ChatGPT (OpenAI) was consulted to help refine wording, improve academic expression, and ensure consistency between in-text citations and the reference list. The intellectual content of the work, including the conceptual model diagram, the analysis, and the summary of findings, was produced independently by the author, in line with the academic integrity principles of Vilnius University.

1. LITERATURE ANALYSIS ON THE IMPACT OF GREEN ADVERTISING ELEMENTS ON CONSUMER ECO-FRIENDLY CHOICE BEHAVIOUR IN THE DIGITAL ENVIRONMENT

This literature review examines the role of green advertising in shaping consumer eco-friendly choice behaviour within the digital environment. It explores how specific green advertising elements affect consumers' awareness, interpretation, and purchase intentions. The review also considers the moderating influence of demographic factors, including age, gender, income, education, and cultural context. By synthesising existing research, the review aims to identify the most impactful advertising elements, highlight variations across consumer groups, and uncover gaps that warrant further investigation. Ultimately, the purpose is to establish a conceptual foundation that explains how green advertising strategies can effectively promote sustainable consumption in a digital marketplace.

1.1. Green Advertising and Sustainability Context

1.1.1 Evolution of Green Advertising and Green Consumerism

Green advertising may be broadly defined as the use of promotional communications emphasizing the environmental benefits of a product, service, or corporate policy to influence consumer attitudes and behaviours towards more sustainable choices (Majeed et al., 2022; García-Salirrosas & Rondon-Eusebio, 2022). Its development has traced that of green marketing more generally, encompassing eco-friendly product development, environmental labelling, and wider commitments to sustainable corporate practice.

Over the past decades, green advertising has evolved from a marginal promotional strategy to a core component of corporate strategy. This has been driven both by regulatory compulsion and by growing environmental consciousness among consumers, which has pushed companies to include more explicit sustainability in their brand narrative (Sharma, 2021; Majeed et al., 2022; García-Salirrosas & Rondon-Eusebio, 2022). Contemporary practice no longer considers green advertising a separate marketing approach but as part of overall sustainability efforts that frame business goals within the larger societal imperatives for environmental stewardship (Majeed et al., 2022; García-Salirrosas & Rondon-Eusebio, 2022).

What differs inherently between green advertising and regular advertising is their focus and orientation. While traditional advertising has traditionally centred on product features, price, and brand reputation, green advertising shifts the emphasis to environmental performance, sustainable manufacturing processes, and company social responsibility (Obaid & Rashid, 2024; Majeed et al., 2022; García-Salirrosas & Rondon-Eusebio, 2022). This distinction reflects

an overall change in consumer priorities: consumers are no longer only interested in product performance but also in the environmental and ethical implications of their choices.

Empirical research has shown that green advertising holds considerable potential for enhancing consumer trust, perceived value, and purchase intention when it is communicated in a credible manner and with substantive information (Sun et al., 2020; Hussain et al., 2020; Kim & Cha, 2021). Its success, nevertheless, hinges on perceived authenticity. When environmental claims are confusing, exaggerated, or misleading, a practice widely referred to as greenwashing, consumer trust may be damaged rather than developed (Sharma, 2021; Palmieri et al., 2024). So, the believability of green advertisements remains their greatest strength and most significant vulnerability.

1.1.2 From CSR to Green Advertising: Positioning Firms in the Digital Age

The move to green advertising represents a turning point in the ways that businesses hope to establish themselves as sustainable leaders of the digital revolution. CSR, originally regarded by many businesses as a sideline corporate activity, found itself increasingly aligned with brand positioning and consumer relations strategies, not least due to increased demands amongst stakeholders to provide evidence of ethical and environmentally sustainable business. Digital media amplify this process by offering businesses special opportunities to broadcast their sustainability initiatives, whilst subjecting them to intensified scrutiny and consumer mistrust.

Academics note that the digital evolution of green advertising and CSR has essentially redrafted the disclosure of sustainability intentions. Corporations now employ company blogs, websites, and social media channels to announce their green objectives and CSR initiatives and make green values integral to their value propositions (Seelig et al., 2019; Kwon & Lee, 2021; Alkhatib et al., 2023; Ktisti et al., 2022). This digitalisation not only widens coverage but also facilitates live, interactive conversations with green-aware consumers. Concurrently, responsible innovation is facilitated and enables operational effectiveness to be aligned with long-term sustainability objectives (Cardinali & De Giovanni, 2022; Pan & Xiao, 2024).

The strategic use of CSR within digital advertising increasingly points to building authenticity and credibility. While initial green advertising very frequently relied heavily on associative appeals, such as by tapping into nature-based associations, new studies indicate a slow shift toward substantive, evidence-based revelations of environmental advantage (Seelig et al., 2019; Kwon & Lee, 2021; Pittman et al., 2021). Brands now, for instance, detail specific data on energy efficiency, carbon reduction, or supply chain disclosure to partially offset rising scepticism among customers. Here, social media takes a particularly important role: visual

narrating, background video footage, and real brand storytelling have come to prove effective drivers of consumer connection and green purchasing intent (Kwon & Lee, 2021; Pittman et al., 2021).

With these opportunities notwithstanding, the digital age has intensified the issues of greenwashing and scepticism among consumers. While digital media afford brands opportunities to announce sustainability widely, they heighten the reputational damage of overstatements or false representations. Scholarship consistently warns that by having companies make vague or unverifiable green assertions, consumers freely judge them to be untruthful and respond with lowered trust and negative brand perceptions (Alkhatib et al., 2023; Lee et al., 2018; Kitchen, 2023). Here, green advertising credence is not only about the substance of CSR pronouncements but also about the clarity, supporting documentation, and accountability by which they are made.

Overall, the incorporation of CSR into green advertising in the digital era reveals a fine balance between risk and opportunity. Conversely, while digital channels help companies to show genuine devotion to being green, adopt creative approaches to visual storytelling, and communicate directly with environmentally concerned consumers, the dominance of greenwashing and increased consumer mistrust call for a safer, clearer strategy. Successful green advertising thus necessitates companies constructing solid CSR bases, providing credible communication, and making strategic use of digital media to affirm their positioning as reliable and sustainable market leaders.

Although earlier research illuminated the transformation of CSR into virtual green advertising strategies, the majority of studies remain focused on developed economies and mass-produced items such as apparel or consumer durables (Seelig et al., 2019; Kwon & Lee, 2021; Pittman et al., 2021). Very few studies contribute to understanding through an empirical perspective the effectiveness of CSR-based green advertising within emerging economies, and extremely few frame their focus on African nations, where perceptions of sustainability among consumers and digital penetration profoundly diverge. Additionally, the vast majority of studies remain focused on strategies of content (i.e., images and message framing), with limited concern about how to enable verification of the truth of CSR statements within heterogeneous cultural settings. To bridge these gaps in research, this research investigates the interplay between CSR, green advertising, and consumer purchase decision-making within Lithuania and Nigeria, thus adding cross-cultural insight into how companies can position themselves to emerge as sustainable leaders within heterogeneous digital settings.

1.2 Theoretical and Conceptual Foundations

1.2.1 Theories relevant to green purchase intention

Green advertising studies borrow from an affluent pool of psychological, behavioural, and communication theories that, as a group, can collectively illuminate how environmental communications influence consumer attitudes, intentions, and behaviour in online settings. Particularly influential are the Theory of Planned Behaviour (TPB) and the Theory of Reasoned Action (TRA), Signalling Theory, heuristics and cue-based information processing accounts, Construal Level Theory, the Value-Belief-Norm (VBN) framework, Social Practice Theory, the Stereotype Content Model, and communication persuasion theories. They bring a distinct perspective: some illuminate why consumers adopt pro-environmental intentions (motivation and norms), others how cue-based advertising information is processed (information versus affective paths), and yet others contextualise consumption within social and cultural practice (contextualising habit).

The Theory of Planned Behaviour (TPB) propounded by Ajzen, in (1991) and its antecedent Theory of Reasoned Action (TRA), have been widely used to predict green purchase intentions. By TPB, it is assumed that behavioural intention, the most reliable predictor of behaviour, is a function of three constructs: attitude towards behaviour, subjective norms, and perceived behavioural control (Paul et al., 2016; Maichum et al., 2016). While in green consumption literature TPB has been enriched by such constructs as environmental concern, moral obligation, and past behaviour to improve predictive strength (Nekmahmud & Fekete-Farkas, 2020; Jebarajakirthy et al., 2024). Accordingly, the TPB family of models presents a strong motivational account of why consumers have purchase intentions in regard to eco-products.

Signaling Theory positions green advertising as a signalling communication that attenuates information asymmetry: eco-claims, labels, and certifications are signals indicating product qualities that elicit consumer trust (Sun et al., 2020; Goyal et al., 2025). Heuristics studies point out that consumers often apply simple decision rules and peripheral information (e.g., green colour information, known logos) when receiving environmental information under low involvement (Santa & Drews, 2023). Construal Level Theory spotlights that message framing (abstract vs. concrete; loss vs. gain) is moderated by psychological distance to affect message persuasiveness (Chang, Zhang, & Xie, 2015; Kim et al., 2020). Value-Belief-Norm explains how beliefs and values stimulate personal norms that drive pro-environment behaviours (Lima et al., 2023), whereas Social Practice Theory positions green purchasing as

an action entailed in routinised practice constructed by materials, competences, and meaning (Ali, 2021). Communication theories such as the Stereotype Content Model and general information-quality/models of persuasion illustrate how perceived warmth, competence, or information quality influence purchase intention or brand evaluation (Zhang et al., 2024; Wang & Li, 2022). Last but not least, stimulus–organism–response (SOR) approaches and 4Ps marketing-mix viewpoints are often employed to frame advertising cues in terms of wider advertising/marketing environments (Sun et al., 2025; Kiyak & Grigolienė, 2023).

Though many frameworks have useful things to say, this thesis adopts TPB, Value-Belief-Norm-Theory (VBN), and Elaboration Likelihood Model (ELM) as its principal theoretical frames. This is justifiable on grounds of both practice and theory because each gives a unique but complementary understanding of the way green advertising affects consumer environmentally responsible purchasing intention.

TPB has been widely found to be a good predictor of green purchasing intention, and it has established that attitudes, subjective norms, and perceived behavioural control all predict pro-environmental behaviour collectively (Witek & Kuźniar, 2023; Zaremohzzabieh et al., 2020; Paul et al., 2016). It delineates the motivational determinants that most proximally predict intention and, therefore, is crucial for consumer decision-making studies.

ELM does provide, however, the mechanisms by which advertising impacts these antecedents. It quantifies to what extent the consumer processes persuasive information peripherally or centrally as a function of processing ability and motivation (Petty & Cacioppo, 1986). For green marketing, ELM captures the function of argument quality, images, and source credibility in bringing about attitude or perceptual change and influencing intentions (Kumar et al., 2021; Neureiter et al., 2024; Zaremohzzabieh et al., 2020).

VBN theory extends this model in the sense that it encompasses moral and value-based motivation in the explanation of pro-environmental action. It assumes altruistic, egoistic, and biospheric values define environmental beliefs (e.g., ascription of responsibility, awareness of consequences), which themselves act to mobilise personal norms influencing environmentally relevant behaviours (Stern et al., 1999; Hein, 2022; Yıldırım & Semiz, 2019; Wang et al., 2023; Gomes et al., 2022). Applied to environmental marketing, VBN implies that advertisements are more effective in persuading people when they appeal to the values of people and activate personal moral responsibilities to behave responsibly.

Each of these three theories adds to a sound explanatory model. TPB identifies the cognitive-motivational predictors of green purchase intention; ELM identifies the persuasion processes by which advertising affects such predictors; and VBN identifies the moral and

normative forces behind pro-environmental intention. Together, they provide explanatory depth, prediction, and contextualisation for examining how green advertising in new media influences consumer environmentally orientated purchase intention in various cultural contexts.

Green advertising has a strong impact on green choice-making and buying intention. Environmental concern, eco-literacy, perceived value, and green claim trust are among the most important determinants (Sharma, 2021; Sun et al., 2020; Hussain et al., 2020; Kim & Cha, 2021; Majeed et al., 2022; Sharma et al., 2022). Endorsements by eco-labels, green branding, and convincing advertising communications have been found to positively influence consumers' buying willingness regarding environmental products (Sun et al., 2020; Li, 2025; Majeed et al., 2022; Sharma et al., 2022). However, perceived high prices, lack of environmental knowledge, and doubts about green claims are among the hindering factors causing the well-established attitude-behaviour gap in green buying (Sharma, 2021; Sharma et al., 2022). Conceptual frameworks like Theory of Planned Behaviour and the SOR (Stimulus-Organism-Response) model have often been utilised to explain green purchasing intentions' resultant psychological mechanisms (Sun et al., 2020; Zhang et al., 2024; Balaskas et al., 2023)

1.2.1.1. Theory of Planned Behaviour (TPB)

Looking at TPB, a consumer's intention to purchase an environmentally friendly product as a result of green advertising is predicted by (1) attitude: the person's positive or negative opinion of obtaining the green product, (2) subjective norms: perceived pressure from important others to behave, and (3) perceived behavioural control (PBC): the ease or difficulty of behaving (Ajzen, 1991; Paul et al., 2016). Attitude is most frequently the largest predictor of intention when green behaviour is in question (Zaremohzzabieh et al., 2020; Kumar et al., 2024). Applications such as environmental concern, green self-identity, and previous behaviour add explanatory capacity and explanation of the intention–behaviour gap (Maichum et al., 2016; Witek & Kuźniar, 2023; Sharma, 2021).

Applied to green advertising, TPB assists in directing variable selection and hypothesised causal chains. Advertising stimuli (eco-labels, explicit functional claims, nature images, emotions, and corporate openness) have an impact on attitudes by creating beliefs about product effectiveness, environmental advantage, and individual significance (Carrión-Bósquez et al., 2024; Schmuck et al., 2018). Eco-labels and credible certifications directly reduce uncertainty, and as such, can increase attitude and PBC (Verrus et al., 2025; Li, 2025). Emotional and ethical appeals indirectly reinforce attitude and green self-identity, while information quality and corporate credibility work to control attitude strength and the likelihood

that intention will result in behaviour (Kumar et al., 2021; Verleye et al., 2023). Social norms can be evoked by social proof methods of online platforms (e.g., likes, celebrity promotion), which can increase perceived social pressure to buy green (Pittman et al., 2021). Concisely put, TPB enables testable constructs (attitude, subjective norm, PBC) to potentially intervene in the advertising stimuli effect upon purchase intention.

1.2.1.2 Value-Belief-Norm (VBN) Theory

The Value-Belief-Norm theory was first posited by Paul Stern and colleagues in 1999 as an important theoretical framework in the area of environmental psychology that identifies why people engage in pro-environmental behaviour. VBN builds on pre-existing value theory and norm-activation models by describing a causal pathway where a person's values elicit beliefs that then evoke a personal moral norm that then governs behaviour consequential for the environment (Hein, 2022; Yıldırım & Semiz, 2019; Wang et al., 2023; Gomes et al., 2022).

Centred on the framework are values that carry central principles of what people find important. VBN theory outlines three primary value orientations: biospheric values, an appreciation for the natural environment and ecosystems; altruistic values, an emphasis on other people's well-being; and egoistic values, an aspect concerning self-centred material gain. These values feature significantly in the development of people's environmental beliefs as they influence the interpretation of ecological issues (Yıldırım & Semiz, 2019; Hein, 2022).

The VBN framework involves beliefs that are expressed in terms of three components: the New Environmental Paradigm (NEP), which reflects dominant ecological orientations; awareness of consequences (AC), referring to recognition of the severity of these environmental problems; and ascription of responsibility (AR), relating to the feeling of one's own commitment to addressing these challenges (Yıldırım & Semiz, 2019; Hein, 2022). Together, these beliefs create the cognitive link between values and behaviour by instilling an understanding of both the risk under consideration as well as a sense of one's own responsibility for reducing environmental harm.

These values then evoke personal norms that are internalised moral commitments to behave in an environmentally responsible manner. For instance, people can experience a sense of moral obligation toward wastage minimisation, recycling, or buying environmentally responsible products due to the belief they hold toward these values (Yıldırım & Semiz, 2019; Hein, 2022). Up until this point, a sense of personal norms offers the greatest psychological push toward pro-environmental behaviour and intentions. VBN theory was widely verified across such varied initiatives as energy conservation efforts, recycling efforts, environmentally

responsible consumption behaviour, and green purchases (Yıldırım & Semiz, 2019; Wang et al., 2023; Hein, 2022; Gomes et al., 2022).

With respect to green advertising, the Value-Belief-Norm theory has some valuable lessons on how marketing communication impacts the formation of environmentally responsible purchasing intentions. In empirical terms, green advertising's effectiveness is greatest when such communication conforms to consumers' deeper values as well as invokes their own norms. In illustration, initiatives that dwell more on the environmental as well as social advantages of products—thus appealing more to biospheric as well as altruistic values—and that remind consumers of the implications of irresponsible action can enhance consumers' sense of moral obligation toward the selection of environmentally responsible options (Yıldırım & Semiz, 2019; Hein, 2022).

Furthermore, personal norms that are guided by personal beliefs and values show particular strength as predictors of green purchasing intentions. The success of online green advertising in increasing knowledge on environmental effects and placing blame on the consumer successfully invokes moral norms that drive purchase intentions (Yıldırım & Semiz, 2019; Wang et al., 2023; Hein, 2022). Here, the digital media play an important role: they allow value-based communication on an individualised level and increase social influence by means of interactive peer-centred communication so that personal norms as well as pro-environmental purchase intentions get further entrenched (Wang et al., 2023; Hein, 2022).

In summary, Value-Belief-Norm theory clarifies that environmentally sustainable buying intentions rely on a chain that commences with values, proceeds with beliefs, and concludes with personal norms. In digital environments, green marketing strategies that more successfully target biospheric and altruistic values, strengthen environmental beliefs, and evoke personal moral obligations pay particular dividends in terms of growing consumer commitment toward green purchases (Yıldırım & Semiz, 2019; Wang et al., 2023; Hein, 2022; Gomes et al., 2022).

1.2.1.3 Elaboration Likelihood Model (ELM)

ELM posits two broad routes of persuasion: a central route, in which receivers carefully and systematically evaluate message arguments, and a peripheral route, in which persuasion depends on superficial cues (source attractiveness, imagery, endorsements) rather than message content (Petty & Cacioppo, 1986). Which route dominates depends primarily on motivation (issue involvement) and ability (knowledge, cognitive resources) to process the message (Kumar et al., 2021; Shahab et al., 2021). In green-advertising contexts, explicit, evidence-based claims and verifiable eco-data are central-route cues that produce more

enduring attitude change; by contrast, nature imagery, colour cues, celebrity endorsements, and emotional framing often function as peripheral cues that influence low-involvement consumers (Pittman et al., 2021; Wang et al., 2020; Fan et al., 2024). The digital environment complicates but also enriches these dynamics: social media facilitates rapid sharing and peripheral cue amplification (likes, influencer cues) while enabling rapid fact-checking and information search that supports central processing for motivated users (Sun et al., 2025; Palmieri et al., 2024).

As such, it is especially useful to classify the green advertising stimuli explored in this work. To illustrate, explicit environmental claims and information about eco-labels would tend to be processed centrally by highly involved or educated potential customers and, if convincing, would result in stronger attitudes and more stable intentions (Kumar et al., 2021; Verleye et al., 2023). By contrast, nature images, symbolic colour cue information, and brief affective appeals would mainly function peripherally, quickly affecting attitudes among low-involvement users but resulting in weaker, less firm intentions (Schmuck et al., 2018; Pittman et al., 2021). Notably, it is also a point made by ELM that the same cue will have a different role to play depending on the receivers: eco-labels may be peripheral evidence to some and a peripheral credibility shortcut to others (Sun et al., 2020).

1.2.2 Consumer Green Purchase Intention

1.2.2.1. Purchase Intention vs. Actual Behaviour

Among the recurring findings in sustainable consumption literature is the existence of an intention–behaviour gap: while robust intentions of consumers to purchase green products are reported, intentions do not always turn into lasting purchasing behaviour. This gap has been extensively acknowledged in green marketing and consumer behaviour research and remains at the centre of firms' and policymakers' challenges (Wijekoon & Sabri, 2021; Sharma, 2021; Witek & Kuźniar, 2023).

There are several reasons why such a gap exists. Monetary limitations, such as higher cost and self-stated financial risk, discourage consumers from making green purchases based on their pro-environmental willingness (Sharma, 2021). Situational barriers, such asa lack of availability or accessibility restrictions of green products, also diminish behavioural translation. Further, psychological inhibitions, particularly disbelief or disbelief in the sincerity of green claims, reduce purchase probability despite positive attitudes or stated intentions. Finally, there are habitual actions: time-tested "normal" patterns of use will override even robust pro-environmental attitudes, highlighting the difficulty of changing deep-seated habits (Witek & Kuźniar, 2023).

Theoretically, the gap matters in challenging the sufficiency of intention as a predictor of behaviour. While TPB predicts intentions based on attitudes, norms, and perceived control consistently, these factors may not effectively explain why intended behaviour fails to materialise. Scholars therefore recommend the inclusion of past behaviour as an additional predictor since past green purchasing habits tend to reinforce subsequent behaviour through habit, self-identity, and learning by doing. Empirical support exists that the inclusion of past behaviour significantly increases intention model predictive power, which echoes its status as a behavioural anchor (Sharma, 2021; Witek & Kuźniar, 2023).

Intervention actions also offer potential remedies for the shortfall. Price reductions, subsidies, or ease of access can reduce structural obstacles, whereas communications that advance the credibility and transparency of green claims can overcome consumer doubt. Furthermore, incentive-based interventions on positive past behaviour, like praising or rewarding environmentally friendly buying, can enhance long-term sustainable consumption behaviour. These theories are consistent with the broader theoretical frameworks of this study: ELM suggests that green claim advertising has the potential to strengthen attitudes and perceived legitimacy of green claims, VBN emphasises activation of moral norms for consistent behaviour, and TPB identifies intention as the motivational driver that must be encouraged by facilitating conditions.

1.2.2.2. Psychological Drivers of Eco-Friendly Intention (Attitudes, Norms, Perceived Control, Trust)

Psychological drivers of green purchase intention are frequently best described by the Theory of Planned Behaviour (TPB), extensively proven in sustainable behaviour studies. Of all the central predictors, attitude toward green products is invariably the most influential predictor of intention to buy. There is evidence to show that if consumers have positive attitudes toward green products, and the belief that they are good for one's health or environment or one's conscience, they are significantly more likely to declare intention to buy (Zhuang et al., 2021; Zaremohzzabieh et al., 2020; Panda et al., 2024; Kumar et al., 2021; Nekmahmud et al., 2022). Positive attitudes usually develop from environmental advantages, ethical obligations, and personal wellness linked to green buying.

Complementary to attitude are subjective norms, which are the perceived social expectancies and pressures from others that also affect intention. Family and friends and peer social influence might prompt consumers to act green when such action demonstrates conformity to desirable social norms or group identification (Zhuang et al., 2021;

Zaremohzzabieh et al., 2020; Panda et al., 2024; Nekmahmud et al., 2022; Xu et al., 2022). This holds particularly in collectivist cultures where social approbation is one among the strong determinants of behaviour.

Another driving factor is perceived behavioural control, which measures how much individuals feel they have the ability to act on desired behaviour. If customers feel they have resources like financial capability, product availability, and product knowledge to procure green products, they will tend to act on their intentions. Perceived behavioural control has been found not only to predict intention but also to have a direct influence on actual purchasing behaviour (Zhuang et al., 2021; Panda et al., 2024; Kumar et al., 2021; Nekmahmud et al., 2022; Xu et al., 2022).

Furthermore, another identified factor is the role of trust in green messaging and brand credibility, which is seen as critical to converting intention to behaviour. Green trust mediates between attitudes, values, and buying intention and moderates between intention and behaviour (Zhuang et al., 2021; Wasaya et al., 2021; Tan et al., 2022; Wang et al., 2022; Rashid & Lone, 2023; Amin & Tarun, 2020). Perceived risk, greenwashing, and lack of clarity erode trust and lower both intention and actual behaviour (Zhuang et al., 2021; Tan et al., 2022; Amin & Tarun, 2020; Sharma, 2021).

Beyond these four foundational components of the TPB, researchers identified other factors that strengthen green purchasing intention. These included heightened environmental concern, such that individuals who do so out of worry about environmental degradation are more inclined to choose sustainable products (Mazhar et al., 2022). Green self-identity, or how individuals internalise personally how environmentally responsible they are as consumers, has a strong positive influence on purchasing intention as well. Emotional values, such as feelings of pride or moral feelings from buying green strengthen these intentions (Chen et al., 2018; Wei et al., 2017).

Taken together, these psychographic drivers suggest that green purchasing intention is not uni-dimensional in nature but multi-dimensional in nature and shaped by attitudes, social influence, perceived behavioural control, and latent value-driven motivations. Understanding these drivers is essential in crafting interventions that not only boost levels of intention but propel these levels onwards with subsequent buying decisions.

Table 1

Major Arguments & Evidence

Claim	Evidence Strength	Reasoning	Citations
Attitude is the strongest predictor of green purchase intent	Evidence strength: Strong	Supported by multiple meta-analyses and empirical studies	(Zhuang et al., 2021; Zaremohzzabieh et al., 2020; Panda et al., 2024; Kumar et al., 2021; Nekmahmud et al., 2022)
Trust in green messaging bridges intention-behaviour gap	Evidence strength: Strong	Trust mediates and moderates intention and behaviour	(Zhuang et al., 2021; Wasaya et al., 2021; Tan et al., 2022; Wang et al., 2022; Rashid & Lone, 2023; Amin & Tarun, 2020)
Past behaviour predicts future green purchasing	Evidence strength: Moderate	Empirical evidence from extended TPB models	(Sharma, 2021; Witek & Kuźniar, 2023)

Source: compiled by the author based on the literature analysis

While attitudes, social norms, and perceived behavioural control induce green purchasing intentions, behavioural lag follows due to practical and behavioural inhibitors. Green message trust works effectively to bridge this lag and create consistent green purchasing behaviour.

Green promotion is underpinned by numerous foundational stimuli that cumulatively impact perceptions, trust, and behavioural intentions among environmentally conscious customers for green products. They serve as cognitive and affective signals through which environmental assertions in the online marketplace are understood by the customer. The next sub-sections explain in detail five key constituents identified in the external literature.

1.2.3 Major Elements of Green Advertising and Their Effects on Eco-Friendly Purchase Intention

1.2.3.1 Eco-Labels & Certifications

Eco-labels like "Organic, "Fair Trade" and "Energy Star" are the most researched aspects of green advertising since they represent legitimate third-party indicators of a firm's environmental concern. Their presence in advertisements has been demonstrated to foster consumer trust, reinforce positive attitudes, and have a positive influence on willingness to pay for environmentally friendly goods (Donato & Adıgüzel, 2024; Kumar et al., 2021; Cai et al., 2017; Nguyen-Viet, 2022). Eco-labels condense complicated sustainability data into an identifiable symbol, thus lessening cognitive effort on the part of consumers and enhancing message clarity. This renders them especially effective online, where ads must contend with several information cues for consumer attention.

However, the success of eco-labels is contingent on credibility and consumer recognition. Labels supported by trustworthy certifying agencies (i.e., governmental bodies, established NGOs) are more compelling than those sponsored by unrecognised or commercial bodies (Kumar et al., 2021; Cai et al., 2017). Furthermore, consumer understanding of label significance moderates its effect: analytically inclined consumers assess eco-labels more analytically, yet less analytically inclined consumers might use them heuristically as simple trust cues. This duality poses both a promise and a threat. Whereas trustworthy eco-labels can enhance brand legitimacy and green identity, unsupported or unknown labels can be rejected as greenwashing and thus decrease trust.

Conceptually, eco-labels and certifications are formal third-party marks that confirm the environmental attributes of a firm or product. They serve credibility signals and reduce information asymmetry between consumers and firms by transmitting news that environmental claims have been tested elsewhere (Verrus et al., 2025; Li, 2025). Some empirical studies further suggest that eco-labels boost wider customer trust, stimulate environmental concern, and generate positive impacts on brand equity and purchasing intention (Carrión-Bósquez et al., 2024; Huang et al., 2024; Nguyen-Viet, 2022; Kumar et al., 2021). There exists, however, debate in the existing scholarship regarding their effectiveness in terms of their direct impact: while eco-labels instigate change in attitudes and perceived brand value, internalisation in terms of actual purchasing behaviour is commonly weaker than if they are framed by compelling narratives (Carrión-Bósquez et al., 2024). This would suggest that eco-labels are more effective if they are part of an overarching advertising paradigm than if they are used in isolation.

1.2.3.2 Message Framing and Environmental Claim (Gain vs. Loss)

Framing specifies the way information is conveyed, either in terms of gains (benefits obtained) or losses (risks prevented), and exerts a significant influence on the processing of green ads among consumers. The literature attests that gain-framed appeals (e.g., "By going green, you make the planet flourish") are more effective for environmentally concerned or highly involved consumers, as they validate identity and long-term advantages (Ekebas-Turedi et al., 2021; Chang et al., 2015). In contrast, loss-framed appeals (e.g., "If we do nothing, the planet will be harmed") are more appealing to consumers who have weaker degrees of environmental commitment or more material, short-term orientations (Lee & Watchravesringkan, 2022; Jäger & Weber, 2020). This difference reveals how a framing strategy can be tailored to audience segments to achieve maximal persuasion.

Meanwhile, there is evidence that framing effects are not general. For instance, current research demonstrates that gain-framed communication of circular economy value (e.g., benefits of reuse and recycling) can effectively enhance willingness to pay by rendering abstract sustainability dreams tangible and rewarding (Gutentag & Russell, 2024; Jäger & Weber, 2020). Lost frames, on the other hand, can be counterproductive when they evoke excessive fear or guilt, triggering avoidance instead of approach. Accordingly, the success of framing is a function of psychological factors like involvement, mindset, and affect tolerance. This would mean that in green online advertising, framing techniques would have to be precisely aligned with consumer profiles instead of their universal application.

Green advertising claims can also differ in how directly they communicate environmental benefits. Explicit claims provide clear, specific, and measurable information, often supported by verifiable data such as recycling rates or emission reductions, which generally enhances credibility (Schmuck et al., 2018; Verleye et al., 2023; Segev et al., 2016). In contrast, implicit claims rely on suggestive language, imagery, or symbolism and tend to appeal more to emotional or peripheral processing. While such claims may improve brand appeal and create positive feelings, they are more likely to be seen as vague or misleading if they are not supported by factual evidence (Schmuck et al., 2018; Verleye et al., 2023). Therefore, the balance between explicit and implicit claims is crucial, as it influences both persuasive effectiveness and the risk of consumer scepticism.

1.2.3.3 Nature-Related Visual Imagery and Symbolism

Visual elements like green and blue colours, leaf patterns, recycling symbols, and images of nature are prevalent in green advertising and serve to influence consumer attitudes.

These images can generate positive affect, strengthen brand-nature associations, and render environmental advantages more concrete, which increases consumer interest and purchase intent (Donato & Adıgüzel, 2024; Schmuck et al., 2018; Şahin et al., 2020). Images also serve as cognitive heuristics: consumers will tend to deduce environmental sustainability based on nature-related design features alone, even without textual claims explained in detail. This symbolic role is what renders visual imagery such an effective adjunct to verbal and factual elements of advertising.

Imagery by itself, however, is not enough to maintain consumer trust or behavioural loyalty. It is found that maximum impact is achieved when functional information is presented alongside visual stimuli since such a two-pronged strategy addresses affective and cognitive routes of processing together (Donato & Adıgüzel, 2024; Schmuck et al., 2018). For more involved consumers, visuals help to validate factual assertions, and for less involved consumers, they can also serve as heuristic shortcuts. Yet, over-reliance on generic "green" visuals in the absence of substantive claims risks coming across as greenwashing or superficial environmentalism. So, although visual imagery is a strong advertising effectiveness booster, its effectiveness depends on being paired with believable, informational copy.

In everyday consumer perception, nature images and eco-symbols in ads use visual semiotics to stimulate emotion, create sensory evocation, and stimulate environmental identity (Schmuck et al., 2018; Mallick et al., 2024). Symbolic use of forests or animals or natural landscape settings triggers consumers' affective connection with nature, subsequently found to stimulate positive attitudes toward brands and support green purchasing intentions (Worakittikul et al., 2024). Researchers warn that if such congruence between visual and product benefits is not reached, it will backfire and create scepticism or suspicion about "greenwashing" (Schmuck et al., 2018). And culture counts: some colours or patterns (e.g., green leaves, drops of water) will positively signal environmentalness in one culture and will look decorative or deceptive elsewhere. For nature images to effectively work thus depends upon compatibility between both the product advertised and cultural expectations.

1.2.3.4 Perceived Credibility / Trustworthiness

Credibility has always been a key mediator for green advertising effects. Green claims that are supported by scientific facts, expert testimonials, or transparent claims lead consumers to view them as credible, which leads to greater brand consideration and purchase intention (Kumar et al., 2021; Sun et al., 2020). Credible eco-labels also facilitate impressions of authenticity, whereas comprehensive, fact-based claims minimise scepticism and foster

long-term consumer loyalty (Jäger & Weber, 2020; Cai et al., 2017). The online context, especially, allows for transparency by permitting companies to connect ads to falsifiable data sources (e.g., reports, certificates)

However, credibility is a delicate and easily undermined construct. When consumers see a lack of clear, modest, and substantiated claims, they are not prone to view them as greenwashing, with the potential to harm not just the ad's efficacy but also long-term brand reputation (Sharma, 2021; Palmieri et al., 2024). Furthermore, digital media powers the threat: social media provides fertile soil for the wide and fast spread of consumer scepticism and negative word-of-mouth when credibility breakdowns happen. Consistency between corporate behaviour and advertisement message, therefore, creates and sustains credibility for the company. In the absence of such consistency, even cleverly designed ads will not persuade or will backfire.

Overall, corporate credibility and transparency serve as the overarching trust mechanisms of green advertising. They encompass honesty in communication, openness about sustainability initiatives, and avoidance of deceptive practices such as greenwashing (Verrus et al., 2025; Verleye et al., 2023). Studies consistently show that credibility strongly moderates the effectiveness of eco-labels, emotional appeals, and claims, since even well-designed advertising loses influence if consumers doubt the authenticity of the company (Kumar et al., 2021; Mallick et al., 2024). Key drivers of credibility include providing detailed information, consistency across communication channels, third-party validation, and demonstrable long-term commitment to environmental practices (Verleye et al., 2023). Transparency in digital advertising is particularly critical, as online consumers can quickly fact-check claims or expose inconsistencies, making credibility a decisive factor in sustaining green purchase intentions.

1.2.3.5 Emotional Appeal

The second essential ingredient in green advertising is emotional appeals, which call upon feelings of guilt, pride, fear, or inspiration to influence consumer reaction. Evidence suggests that negative emotions like fear and guilt can be effective at enhancing purchase intention by inducing feelings of personal responsibility for environmental damage and moral obligation to act (Balaskas & Rigou, 2023; Balaskas et al., 2023). By contrast, positive feelings of pride or inspiration can create long-term commitment through empowerment and gratification when choosing eco-friendly options (Yun & Pounders, 2024; Jiang et al., 2024). Emotional appeals, then, tap into the affective aspect of consumer choice, supplementing the rational and normative motives privileged in TPB and VBN approaches.

The effectiveness of emotional appeals, nevertheless, relies on authenticity and setting. Overreliance on fear or guilt appeals can promote defensive avoidance, and pride appeals can be seen as manipulative without the support of credible facts (Balaskas & Rigou, 2023). Additionally, emotional appeals are most effective when combined with other factors like credibility and framing, where emotion both engages values and is supported by rational justification. Online, emotional messages are also facilitated by visual storytelling, interactive formats, and viral sharing that can extend their reach and influence. So, while emotions are effective drivers of persuasion, they need to be carefully attuned to consumer values and expectations.

More broadly, emotional and moral appeals form green advertising's core component since they appeal to consumers' values, ethics, and affective relationships with nature. Such appeals draw upon responsibility, guilt, pride, or compassion issues and tend to elicit stronger behavioural reactions than purely informative content (Schmuck et al., 2018; Taufique, 2020). According to research, such emotional appeals prove critically potent if coupled with cognitive reinforcement like environmental knowledge or eco-labels to cause dual affect and rational justification impact (Mallick et al., 2024). Of significance is the normative pressure triggered by moral appeals to get consumers to act accordingly in terms of environmental identity. Scholars caution against overuse of guilt or fear appeals to produce defensive resistance and not behavioural change and point to the balance and frame of the message as important (Schmuck et al., 2018).

1.3 Green Advertising in the Digital Environment

1.3.1 Transition from Conventional to Digital Green Advertising

Digitisation has also affected green marketing campaigns and made them target specific, interactive, and transparent (Sun et al., 2025; Palmieri et al., 2024). Social media platforms allow one to post comprehensive environmental information as well as stimulate consumer engagement with green products (Sun et al., 2025; Palmieri et al., 2024). They also facilitate real-time feedback and broadcasting of both positive and negative word-of-mouth among customers and make green marketing assertions more traceable (Palmieri et al., 2024). The use of digital media has thus broadened and intensified the reach of green advertising, though it has also increased scrutiny regarding how environmentally valid such assertions are (Sun et al., 2025; Palmieri et al., 2024).

In addition, digitalisation has transformed the computation of persuasion and the attainment of environmental legitimacy by brands. Unlike traditional media, which is one-way

communication, digital advertising allows two-way, interactive communication since consumers can negate, affirm, or co-create green messages. Interactivity enhances elaboration of the message and is able to reinforce positive environmental attitudes where information is clear and credible (Palmieri et al., 2024). But the same digital affordances also magnify risks: lies or hyperbole can be instantly rebutted, and negative feedback can go viral, fast-tracking reputational damage. So while digitisation opens up unheard-of scope for precision targeting and genuine storytelling, it also raises the accountability bar higher, obliging companies to merge marketing assertions with concrete sustainability actions.

1.3.2. Role of Social Media Influencer Marketing in Eco-Friendly Campaigns

Social media influencer marketing has emerged as a powerful driver of green promotion, shaping consumer attitudes and behaviours toward green products in ways that traditional advertising might not. Influencers, particularly those in the process of building a strong pro-environmental identity, are able to leverage credibility, authenticity, and parasocial relationships in ways that can promote sustainable actions and activate green buying intentions. In the online environment, where trust and engagement are held highest, the influencer function extends beyond promotion to community and cultural norm building toward sustainability.

Maybe the most compelling finding in the literature is that green advertising success is highly mediated by influencer credibility. Research indicates that "greenfluencers"—influencers with an explicit eco-orientation—can affect consumers' attitudes and purchase intentions positively, particularly when their number of followers is comparatively low. Influencers with low followers are perceived as more down-to-earth and authentic, with higher trust levels compared to celebrity influencers or macro-influencers (Pittman & Abell, 2021). This trust not only generates buying intentions but also proximal prosocial acts, such as donating to environmental charities. Credibly, consumers are more active when they perceive the influencer's intentions are genuine and not just mercenary, highlighting credibility and authenticity as key drivers of efficacy (Breves & Liebers, 2022; Nazir & Wani, 2024).

The interpersonal aspect of influencer–follower interaction adds to the persuasiveness. Parasocial relationships, emotional one-way bonds between influencers and followers, enhance the power of green advertising by inducing intimacy and emotional closeness. If followers feel that they "know" and trust the influencer, they will internalise their communications on the environment and transform them into pro-environmental intentions (Breves & Liebers, 2022). The style of communication also plays an important role. Evidence shows that "informers" (education influencers) are better at building trust and intent to purchase than "entertainers",

even when the latter possess better reach and engagement. Similarly, endorsement type is important: implicit value-based endorsements can be perceived as more sincere than overt product endorsements, validating perceived sincerity (Zhao et al., 2024)

In addition to personal influence, content strategies used by influencers also account for the success of green advertising. Storytelling, educational content, and engagement campaigns, such as sustainability challenges or green hacks for everyday life, render sustainable actions more tangible and actionable. These strategies not only encourage individual green choices but also create online communities where sustainable norms and collective identities are escalated (Iqbal et al., 2025; Jacobson & Harrison, 2021). By fostering a sense of belonging and collective purpose, influencers create online communities that make green behaviours the norm and amplify them, and therefore extend their influence from individual consumers to wider social movements.

Collectively, the literature shows how social media influencer marketing enhances green advertising through trust, authenticity, and emotional engagement. Such campaigns that share an influencer's values and employ genuine, earthy content will tend to generate spontaneous engagement and drive ecologically aware consumer practice. However, existing research works to focus on specific influencer traits or styles in isolation. Very little is known about the way individual factors such as credibility, parasocial bonds, and content strategy combine to affect green purchasing intentions across different cultural and online contexts. Closing this gap calls for integrative strategies that account for both individual-level psychological processes and community-level processes in digital green advertising.

1.3.3 Consumer Engagement and Interactivity on Digital Platforms

New media have transformed the brand-consumer relationship such that interactivity and engagement are now at the epicentre of relationship building and value generation in green marketing. Engagement is no longer conceived as passively watching or merely consuming, but a complex participatory process driven by technological affordances, content quality, and social processes. Consumers not only passively receive messages via new media but also actively co-create brand meaning, which has far-reaching implications for campaigns in environmental marketing.

Consumer engagement is a multi-dimensional concept encompassing cognitive, emotional, behavioural, and social aspects. Cognitive engagement refers to attention and information processing, while emotional engagement refers to affective engagement like liking or empathy. Behavioural engagement is observed in behaviour like liking, sharing, or

commenting, and social engagement is observed when consumers co-create meaning, become supporters of brands, or develop communities. Critical drivers include interactivity (real-time conversation and instant feedback), richness of content (videos, images, and interactive tools), and personalisation (tailored messages). Together, they engage consumers as active participants instead of passive viewers in brand ecosystems (Mollen & Wilson, 2010; Eigenraam et al., 2018; Hollebeek & Macky, 2019; Bowden & Mirzaei, 2021)

Interactivity is always found to be the most powerful driver of digital engagement. Interactive elements, from polls, quizzes, and augmented reality (AR) experiences to mobile app feedback systems, engage consumers to co-create and influence brand narratives. Empirical evidence shows that interactivity fosters satisfaction, loyalty, and even subjective well-being because it addresses users' psychological needs for autonomy, competence, and relatedness (Bozkurt et al., 2020; Utami et al., 2021; Roy et al., 2023; Arghashi & Yuksel, 2022). Interactive calls to action (e.g., "join the challenge", "vote now") significantly reinforce engagement and make consumer involvement in brand actions more meaningful (Moran et al., 2019; Schultz, 2017). For green marketing, such interactivity turns sustainability behaviours tangible and actionable, rendering pro-environmental intentions stronger.

Social media sites maximise engagement by forming both consumer-consumer and consumer-brand relationships. Social media communities provide spaces where consumers not only view content but also share experiences, validate each other's choices, and collectively reinforce enduring norms. Such traits as entertainment appeal, individualisation, and trendiness play their part in both face-to-face interactions and word-of-mouth communication, extending green message dissemination far beyond brand-authored content (Cheung et al., 2024; Hollebeek & Macky, 2019; Wang & Huang, 2022; Bowden & Mirzaei, 2021). In addition, social influencers and content marketing online is mediated by promoting credibility and relatability, hence increasing trust, brand loyalty, and sustainable consumer behaviour.

Scholars classify digital engagement into various practices based on motivational states: Fun practices include advergames, contests, or interactive entertainment that trigger affective and behavioural responses (Eigenraam et al., 2018; Hollebeek & Macky, 2019). Learning practices involve reading reviews, tutorials, or sustainability content, which involve cognitively engaging consumers (Eigenraam et al., 2018; Hollebeek & Macky, 2019). Feedback practices such as surveys, ratings, and open comments prove active behavioural contributions (Bozkurt et al., 2020; Bowden & Mirzaei, 2021). Brand advocacy practices involve sharing, recommending, and co-creating content, which is the highest level of social and behaviour engagement (Busalim et al., 2021; Wang & Huang, 2022)

Overall, consumer interaction and interactivity in the online world are driven by community, rich content, and interactive design. Brands that tap into these elements create more profound relationships, loyalty, and consumer value. However, much of the literature that currently exists talks about engagement at a general level, and fewer studies aim at the way green advertising campaigns use interactivity and community-building to drive environmentally conscious purchase intentions. Closing this gap is critical to discovering how online engagement can be used not only to encourage green attitudes but also to translate intention into enduring pro-environmental behaviour.

1.3.4 Risks of Greenwashing in Online Environments

Greenwashing, widely regarded as the action of releasing misleading or unfounded environmental performance assertions, occupies the focal point of tremendous hazards in online and digital environments. In the wake of e-commerce, social media, and online advertising on the rise, products now engage the masses with messages of sustainability on an unprecedented level. While there are huge opportunities for marketing green scams, the risks and consequences of dishonest environmental assertions escalate correspondingly. These dangers extend well beyond immediate consumer reactions to affect brand reputation, consumer trust, regulatory stance, and the broader credibility of the sustainability movement.

Loss of trust and brand reputation are among the largest dangers of greenwashing. Studies always prove that if consumers sense false environmental claims, their trust reduces significantly, which frequently results in negative word of mouth, brand hate, and long-term corporate reputation damage (Santos et al., 2023; Chen & Chang, 2013; Pimonenko et al., 2020). The Volkswagen emissions scandal provides a page-top example of how one greenwashing incident can leave imperishable traces on consumer attitudes and involvement (Topal et al., 2020; Torelli et al., 2019). Trust that has been broken is difficult to regain, particularly in social media, where consumer grievances are communicated speedily and preserved in cyberspace memory.

Greenwashing also creates consumer uncertainty and heightened risk perceptions. Online stores, where the buyers are inundated with competing claims of sustainability, are complicated further by greenwashing, which makes it more difficult to distinguish truly eco-friendly products from those promoted through deceptive means. This confusion prevents the establishment of "green trust" and restrains sustainable consumption as buyers question all environmental claims, real or fabricated (Chen & Chang, 2013; De Jong et al., 2017; Moran et

al., 2024). In the long term, such scepticism reduces the overall tendency to adopt environmentally sustainable brands and hence harms the broader push towards sustainability.

While greenwashing may yield short-term gains, e.g., increased sales, favourable media coverage, or short-term stock performance gains, the benefits are generally followed by long-term losses. When such false claims are uncovered, brands suffer value loss, investor trust erosion, and stakeholder loss (Li et al., 2024; Delmas & Burbano, 2011). In today's digital age, where there is an increasing need for transparency and accountability by consumers and investors alike, the long-term consequences of greenwashing outweigh any short-term gain.

The space itself enhances these risks. Social media and online networks facilitate instant scrutiny, which accelerates the velocity and scale at which greenwashing is revealed. A single false statement can provoke public outrage and trigger reputation crises and, in certain cases, regulation (Lyon & Montgomery, 2013; Oppong-Tawiah & Webster, 2023; Ren et al., 2024; Yue & Li, 2023). In this manner, the very processes that companies use to drive forward sustainability, internet marketing efforts, virtual storytelling, and brand influencer partnerships can become avenues for broadening the ramifications of making false claims.

Aside from financial and reputational sanctions, greenwashing also causes negative emotional and behavioural responses among consumers. Evidence shows that learning about the trickery makes consumers unhappier, less trusting, and less contented, particularly in online environments with greater demands for authenticity (Szabo & Webster, 2020; Santos et al., 2023). The experience builds disengagement, brand avoidance, and aversive brand connections that continue much longer after the event.

Taken overall, the risks of greenwashing online are staggering. Deceptive claims not only destroy confidence and cause confusion but also expose brands to immediate reputation crises and regulatory scrutiny. Although greenwashing may appear to have short-term competitive advantages, its long-term reputational, investor faith, and consumer loyalty cost is far greater. In the digital age, transparency and authenticity are not a choice but a requirement in order to establish long-term relationships with consumers and be a valuable contributor to the sustainability agenda.

1.4 Demographic Influences on Green Purchase Intentions

1.4.1 Age, Gender, Income, and Education Effects

In terms of age, some studies note that age has a strong impact on green intentions and attitudes, such that an older age cohort (Gen X) is sometimes weaker in response than a newer age cohort (Gen Y, Z) (Kumar et al., 2024; Casalegno et al., 2022; Ham et al., 2021; Lavuri et

al., 2021; Bernardes et al., 2022). Other studies note no strong age effect, notably for youth groups or student groups (Smajić et al., 2024; Mehraj et al., 2023; Rahim et al., 2017).

As regards gender, the results are mixed. Some of the research confirms that women are more favorable towards green intentions and behaviours (Witek & Kuźniar, 2020; Rahim et al., 2017; Chekima et al., 2016), while some do not present any gender difference at a considerable level (Smajić et al., 2024; Mehraj et al., 2023)

Some studies report higher income and education as typical for higher green buying intentions and behaviour (Wang et al., 2020; Witek & Kuźniar, 2020; Mehraj et al., 2023; Mishra & Farooqi, 2024; Chekima et al., 2016). Some of the studies from the Middle East and Asia report them as non-significant (Smajić et al., 2024; Mehraj et al., 2023; Mishra & Farooqi, 2024).

1.4.2 Generational Differences (Gen Z, Millennials, Gen X, Boomers)

Cohort analyses consistently demonstrate that younger generations, such as Gen Z as well as Millennials (Gen Y), demonstrate more pro-environmental attitudes than their more established elders. Compared with Generation X as well as the Baby Boomer generation, these generations demonstrate greater concern over the environment alongside a stronger sense that they can make a significant difference with their own spending decisions towards environmental ends (Kumar et al., 2024; Casalegno et al., 2022; Ham et al., 2021; Lavuri et al., 2021; Ghouse et al., 2024; Filip et al., 2025; Bernardes et al., 2022).

Herein lies Gen Z's particular importance in its unusually strong emphasis on sustainable consumption. These members do not merely demonstrate a stronger belief that green spending is more important; they are more strongly influenced by knowledge on the environment as much as by subjective norms—the social expectations as much as peer pressures that underlie eco-aware behaviour (Casalegno et al., 2022; Ghouse et al., 2024; Filip et al., 2025; Bernardes et al., 2022). The implication thereby is that Gen Z's eco-behaviours come not merely as a product of personal values but instead from a burgeoning collective social context normalising as much as rewarding responsible behaviour towards sustainability.

1.4.3 Cross-Cultural and Comparative Studies

Cross-country data indicate that demographic effects on green behaviour are far from universal but highly context-specific. Middle Eastern studies, for example, particularise that national origin has a greater effect on consumer behaviour compared to education, gender, or age, emphasising the role of national identity and cultural context in green attitudes (Smajić et al., 2024). On the contrary, in the emerging markets, the old sociodemographic factors like age, gender, education, and income have strong influences on green behaviour but with varying

magnitude and direction depending on the country and cultural setting at hand (Witek & Kuźniar, 2020; Ham et al., 2021; Mabkhot, 2024).

This implies that while demographic conditions continue to be valid predictors of environmental consumption behaviour, their influence is mediated through cultural attitudes, economic conditions, and institutional settings. Solutions for promoting sustainable consumption must accordingly be designed to suit regional and cultural settings as opposed to presuming homogenous demographic effects within global markets.

Table 2

Demographic Variables Impacting Intention to Purchase Green [IR8]

Factor	Typical Influence (Varies by Context)	References
Age	Mixed; tend to favour the young	(Kumar et al., 2024; Casalegno et al., 2022; Ham et al., 2021; Lavuri et al)
Gender	Females are often more positive, but not always	(Witek & Kuźniar, 2020; Rahim et al., 2017; Chekima et al., 2016)
Income	Higher income linked to stronger intentions	(Wang et al., 2020; Witek & Kuźniar, 2020; Mehraj et al., 2023; Mishra & Farooqi, 2024; Chekima et al., 2016)
Education	Higher education often increases green intention	(Wang et al., 2020; Witek & Kuźniar, 2020; Mehraj et al., 2023; Mishra & Farooqi, 2024; Chekima et al., 2016)

Urban/Rural	Urban > Rural in awareness and behaviour	(Kumar et al., 2024)
Age	Gen Z, Millennials > Gen X, Boomers	(Kumar et al., 2024; Casalegno et al., 2022; Ham et al., 2021; Lavuri et al., 2021; Ghouse et al., 2024; Filip et al., 2025; Bernard …)
Cross-Cultural	Effects vary by country/region	(Smajić et al., 2024; Witek & Kuźniar, 2020; Ham et al., 2021; Mabkhot, 2024)

Source: compiled by the author based on the literature analysis

Summary of Integrated Findings

The reviewed literature provides valuable insights into the evolution of green marketing, theoretical underpinnings, digital strategies, demographic influences, and advertising elements. However, across these domains, important research gaps remain that justify the present study. Extensive literature about the development of green advertising and marketing has been found in developed economies, with limited research in emerging economies such as Nigeria. This does not address the questions of whether consumers have any perceptions of CSR-focused green initiatives in African realities, particularly when conveyed through the digital platform.

Theoretically, past research tends to draw upon commonly accepted models such as the Theory of Planned Behaviour (TPB), the Value–Belief–Norm theory (VBN), and the Elaboration Likelihood Model (ELM). While these models have independently made distinct contributions to knowledge relating to environmental conduct and advertising effect, comparatively less effort has been devoted to integrating these into a consideration of green web advertisement. This does leave a gap in understanding of how the collective explanatory capacity of such theories can explain cross-cultural or African consumer decision-making.

The movement to online spaces brings with it new dynamics in green marketing that remain to be extensively explored. Although influencer promotion and consumer engagement tactics have been well documented, their efficacy in advancing environmentally desirable

behaviour remains to be established. In addition, although global scholarship investigates reputational and regulatory risks of online greenwashing, not much is known about how such risks unfold in emerging markets, where regulatory landscapes and customer aspirations can widely vary.

Population research is another area of inconsistency. Age, sex, level of education, income, and intergenerational variations have been seen to influence green purchasing intention, but results are often context-specific. For the majority of cases, the cultural setting is treated superficially without adequate operationalisation. There has to be a stricter approach, for example, by comparing responses within countries such as Nigeria and Lithuania and putting discrepancies in current cultural dimensions, that is, individualism–collectivism and uncertainty avoidance.

Finally, while it is universally agreed that features of advertising, such as eco-labels, message framing, emotional appeals, and corporate credibility, influence consumer reactions, most research assesses these separately and in industrial economies. There are practically no studies that attempt to test some of these multiple elements simultaneously or find out how these interact to predict purchase intention in emerging economies.

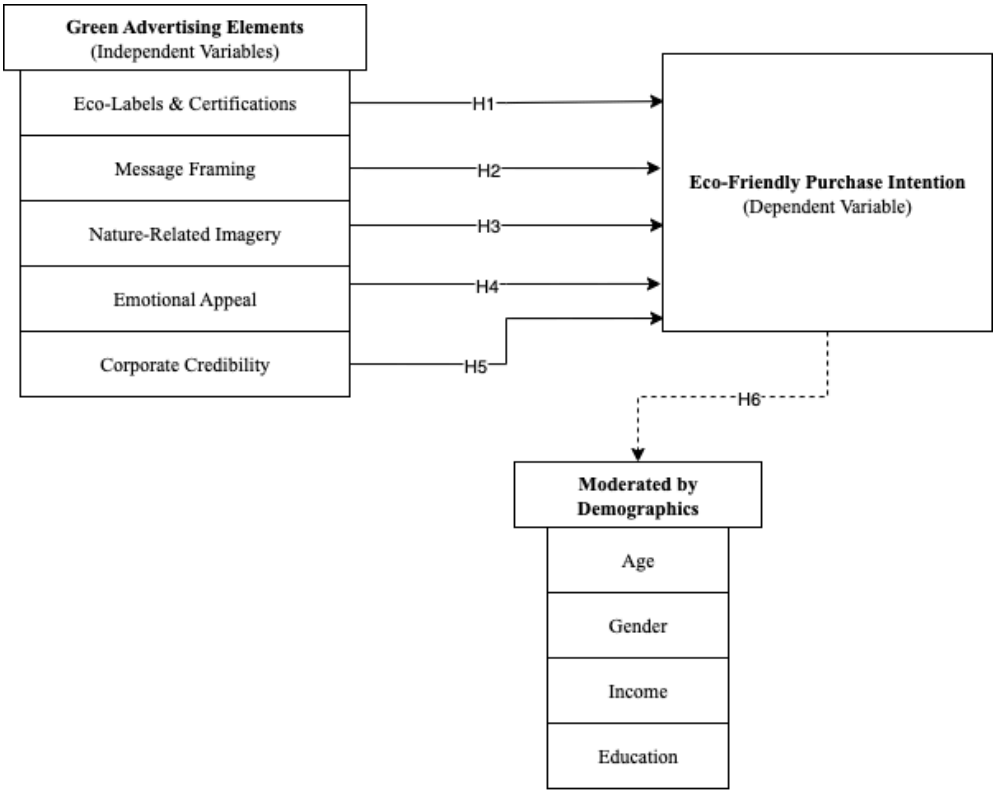
Cumulatively, these results suggest some overall lacunae: a shortage of developing and cross-cultural context-specific evidence, weak theoretical integration of behavioural and communication models, failure to consider the digital platform and greenwashing challenges, variable findings regarding demographic impacts, and a shortage of research investigating green advertising variables at multiple levels simultaneously. This study tries to cover these gaps by examining some green advertising elements, such as eco-labels, message framing, emotional appeals, and corporate credibility, in internet environments with an integrated theory and comparing Nigerian and Lithuanian consumers' responses.

Conceptual Framework

The theoretical framework of this research is summarised as in the model below. It assumes that certain green advertising aspects have a direct impact on the eco-friendly purchasing intentions of consumers and that these relations are influenced by dominant demographic variables.

Figure

Research Conceptual model



Source: compiled by author based on reviewed literatures

2. METHODOLOGY USED IN EXPLORING THE IMPACT OF GREEN ADVERTISING ELEMENTS ON CONSUMER ECO-FRIENDLY CHOICE BEHAVIOUR IN THE DIGITAL ENVIRONMENT

2.1 Research Design

This paper follows the quantitative research design and deductive methodology. Quantitative design is selected because it provides an objective measure of relationships between variables: green advertising elements (independent variables), eco-friendly purchase intention (dependent variable), and demographic factors (moderating variables) in a large sample. This makes it possible to statistically generalise the findings.

The survey strategy is cross-sectional because the data is gathered at one time among the respondents in Nigeria and Lithuania. The design is effective in getting a snapshot of consumer perceptions and intentions and comparing them cross-culturally.

The study is deductive in nature, as it starts with the already existing theories (Theory of Planned Behaviour, Value-Belief-Norm Theory, and Elaboration Likelihood Model) to build a conceptual framework and hypotheses. These are then empirically tested using the structured data collection and the statistical analysis.

2.2 Hypothesis Development

According to the framework, the hypothesis to be tested is as follows:

Direct Effect

H1: Eco-labels and Certifications

Third-party validation of environmental performance through eco-labels is repeatedly shown to enhance consumer confidence and purchase intent when perceived as credible (Nguyen-Viet, 2022; Panopoulos et al., 2022; Li, 2025). The impact is greatest among consumers with high environmental concern or perceived consumer effectiveness (K & Basu, 2023; Song et al., 2020; Arsyistawa & Hartono, 2022). Other research indicates eco-labels can also exert indirect effects via green brand equity, consumer attitudes, or trust (Kolović et al., 2023; Carrión-Bósquez et al., 2024; Shahid et al., 2024).

$H1_0$: Eco-labels and certifications do not have a significant positive effect on eco-friendly purchase intention.

$H1_1$: Eco-labels and certifications have a significant positive effect on eco-friendly purchase intention.

H2: Message Framing

The framing of sustainability messages (e.g., gain vs. loss, personal vs. social) influences how consumers process green product information. Framing that aligns with consumer characteristics (construal level, ecological concern) increases persuasive effectiveness (Chang et al., 2015; Zhang et al., 2024; Jäger & Weber, 2020). Concrete, benefit-orientated, credible messages tend to increase purchase intention.

$H2_0$: Message framing does not have a significant positive effect on eco-friendly purchase intention.

$H2_1$: Message framing has a significant positive effect on eco-friendly purchase intention.

H3: Nature-related Imagery

Advertising visuals containing nature-related imagery create positive affect, virtual nature experience, and favorable brand attitudes, all of which help to promote higher eco-friendly purchase intention (Schmuck et al., 2018). Such an influence is most pronounced in consumers who are already environmentally concerned.

$H3_0$: Nature-related imagery does not have a significant positive effect on eco-friendly purchase intention.

$H3_1$: Nature-related imagery has a significant positive effect on eco-friendly purchase intention.

H4: Emotional Appeals

Pride, warmth, or guilt feelings tend to be utilised in green marketing. These appeals have been demonstrated to effectively induce pro-environmental consumption, especially when justified by true brand values and authentic claims (Zhang et al., 2024; Suttikun et al., 2024). But their impact tends to be susceptible to perceived sincerity and greenwashing avoidance.

$H4_0$: Emotional appeals do not have a significant positive effect on eco-friendly purchase intention.

$H4_1$: Emotional appeals have a significant positive effect on eco-friendly purchase intention.

H5: Corporate Credibility

Corporate credibility, including the credibility of corporate communications and green eco-labels, is conceptualised in this study as an enabling element of green advertising, as it determines the extent to which consumers perceive environmental claims as trustworthy, authentic, and reliable. Empirical evidence shows that perceived credibility mediates the

relationship between green advertising and purchase intention, thereby reinforcing the importance of authenticity in building consumer confidence (Cai et al., 2017; Shahid et al., 2024; Zhang et al., 2024; Jäger & Weber, 2020).

$H5_0$: Corporate credibility does not have a significant positive effect on eco-friendly purchase intention.

$H5_1$: Corporate credibility has a significant positive effect on eco-friendly purchase intention.

H6: Moderating Effects of Demographics

Demographic factors (age, gender, income, and education) may change the strength or direction of the relationships between green advertising elements and eco-friendly purchase intention. Younger consumers (Gen Z, Millennials) and higher education/environmental awareness levels tend to respond more strongly to eco-labels, credibility cues, and green messages (Panopoulos et al., 2022; Song et al., 2020; K & Basu, 2023; Majeed et al., 2022; Carrión-Bósquez et al., 2024).

$H6_0$: Demographic factors (age, gender, income, education) do not moderate the relationship between green advertising elements and eco-friendly purchase intention.

$H6_1$: Demographic factors (age, gender, income, education) significantly moderate the relationship between green advertising elements and eco-friendly purchase intention.

2.3 Population, Sampling, and Data Collection Procedures

The research population to be included in this study will be the online active adult consumers in both Nigeria and Lithuania since this study will be concentrating on the effectiveness of digital green adverts. A non-probability sampling method, combining both snowball and purposive, will be used to access a perfectly representative sample of this digitally active population.

The purposive sampling element will see to it that the first respondents are sampled on the basis of their relevance to the research purpose, which is whether they are active online consumers. This conforms with the recommendations that purposive sampling should be used when the researchers require accessing a certain subgroup of the population with specific features (Etikan, Musa, and Alkassim, 2016). The snowball sampling factor will be inherent in the online distribution of the survey because the participants will be asked to distribute the survey among their circles. The method has been known to be effective when targeting the population that is inaccessible or remote, including certain groups of internet consumers (Parker, Scott, and Geddes, 2019).

Table 3

Benchmarking of Sample Size Against Comparable Studies on Green Purchase Intention

Study	Research Focus	Methodology	Sample Size	Geographic Context	Link
Nekmahmud et al. (2022)	Transforming consumers' intention to purchase green products: The role of social media.	Quantitative; Online Survey, analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM).	785	Bangladesh	Science Direct
Witek & Kuzniar (2023)	Green Purchase Behaviour Gap: The Effect of Past Behaviour on Green Food Product Purchase Intentions.	Quantitative; Online Survey, analyzed with statistical tests including ANOVA, regression, and path analysis.	650	Poland	MDPI
Majeed et al. (2022)	Green Marketing Approaches and Their Impact on Green Purchase Intentions.	Quantitative; Online Survey, analyzed using Structural Equation Modeling (SEM).	450	Pakistan	MDPI
Carrión-Bósquez et al. (2024)	Advertising and Eco-Labels as Influencers of Eco-Consumer Attitudes and	Quantitative; In-person Survey, analyzed using descriptive statistics,	430	Ecuador	MDPI

	Awareness.	correlation, and multiple regression.			
Nguyen-Viet (2022)	Understanding the Influence of Eco-Label, and Green Advertising on Green Purchase Intention.	Quantitative; Online Survey, analyzed using Structural Equation Modeling (SEM).	870	Vietnam	Taylor & Francis
Kumar et al. (2021)	Does Environmentally Responsible Purchase Intention Matter for Consumers? A Predictive Sustainable Model.	Quantitative; Online Survey, analyzed using Structural Equation Modeling (SEM).	230	India	Science Direct

The sample size used in this research was identified in two different ways: benchmarking on existing literature and following the principles of statistical power.

A review of similar quantitative studies relating to green purchase intention, as depicted in Table 3, indicates that the sample sizes used in the studies have varied between 230 and 870. The benchmarking activity, in this case, proves that the target sample of 240-350 in this thesis (a minimum of 120 respondents in each country) is not far out of the approved scope of published studies in this area. It can be compared to being larger than the sample size of Kumar et al. (2021), which is why it can be considered a strong sample of a master's-level study.

Moreover, this sample size is considered sufficient for the intended statistical tests, which include multiple regression and moderation tests. The recommended minimum count of observations per predictor variable is 10-15, as proposed in the rule of thumb explained by Hair et al. (2019). Having five main independent variables (green advertising elements), a sample size of 345-350 is more than enough to ensure that it has sufficient statistical power to detect medium effect sizes. Most importantly, the per-country sampling of a minimum of 120

respondents is a sufficient basis to make a significant cross-cultural comparison between Nigeria and Lithuania, as well as to be able to conduct the analysis on a group level and have some insights into the demographic moderators in each cultural setting.

The primary data will be collected using a structured questionnaire in an online form, which is to be administered using a Google Forms platform. The questionnaire will be separated into four parts:

Section A: Screening and informed consent.

Section B: A scale to measure eco-friendly purchase intention, adapted from established Theory of Planned Behaviour scales.

Section C: Scales measuring perceptions of the five green advertising elements using a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Section D: Demographic profile of respondents (age, gender, income, education, country).

The questionnaire will be distributed through online platforms, including social media groups, forums, and professional networks relevant to both countries.

2.4 Ethical Considerations

This study is going to be carried out within the confines of the accepted ethical standards. All the respondents will be given a detailed informed consent form before taking part. This shape will provide the purpose of the research, the voluntary character of the participation, the guarantee of anonymity and confidentiality, and the right to withdraw at any time without penalty. The next step will be proceeding to the questionnaire, which will be considered implied consent.

No personally identifiable information (PII), including names or email addresses, will be gathered to ensure that the privacy of the participants can be kept secure. The data obtained will be stored in a secure location, where only the researcher will be allowed to access it. The data shall be retained as long as it is required to finish the thesis and shall be removed permanently thereafter.

2.5 Methods of Data Analysis

After the collection of data, they will be coded, cleaned and analysed in the IBM SPSS statistics software. Preliminary data structuring and formatting will be done in Microsoft Excel. The analysis will go in the following way:

1. **Descriptive Statistics:** Frequencies, percentages, means, and SD will be computed to describe the demographic features of the sample and the central tendencies of the key variables.
2. **Reliability Analysis:** The internal consistency of all multi-item scales (e.g., for each advertising element and purchase intention) will be assessed using Cronbach's Alpha. A coefficient of 0.7 or higher will be considered acceptable.
3. **Inferential Statistics:**
    - **Pearson Correlation:** To test the strength and direction of the bivariate relationships among the independent variables and the dependent variable.
    - **Multivariate regression analysis:** To test the hypotheses H1-H5 and establish the combined and individual effects of the five elements of green advertising on the purchase intention of being environmentally friendly.
    - **Moderated Regression Analysis:** To examine hypothesis H6, which predicts the relationship between the advertising component and purchase intention by the issue of demographics and country context, strengthening the relationship or weakening it.
    - **T-tests and ANOVA:** To compare the mean scores on the important variables in the two countries and among various demographic groups (e.g., the generational cohorts).

3. QUANTITATIVE ANALYSIS AND EMPIRICAL FINDINGS OF THE STUDY

3.1. Methodical approach and demographic insights of participants

Two surveys were conducted to analyse the factors influencing eco-friendly purchase intention in response to green advertising, with one administered in Nigeria and the other in Lithuania. There were 385 initial responses received in the surveys. Nevertheless, 37 answers were disqualified because they failed a required attention-check question within the questionnaire. In this item, respondents had to choose 'Disagree' to ensure that they were reading the items carefully, and 26 of their responses were invalidated because the respondent chose 'Agree' instead of 'Disagree' for the attention check question. Then, the analysed sample was limited to 348 valid answers, including 219 Nigerian and 129 Lithuanian.

Data collection was conducted through Google Forms because the tool has customisable questionnaire options, allows data to be exported to .xlsx, and is easy to use. The data was collected, coded, and cleaned using Microsoft Excel after preparation. The invalid responses were eliminated, and afterward the coded data were imported to SPSS, where they were analysed statistically. Regression, moderation, correlation, and comparative analysis (t-tests, ANOVA) were done in SPSS.

To proceed to the analysis itself, it is essential to consider the various demographic attributes as a way of explaining the composition of the sample and putting cross-cultural results into perspective. This involves a detailed analysis of factors related to gender, age, level of education, and net income. Since the questionnaire was conducted in two countries, the results of the demographics for each country must be discussed separately. Thus, the demographic characteristics of respondents will be evaluated in two groups: 1) the respondents of Nigeria, and 2) the respondents of Lithuania. Table 4 depicts a generalised table of demographic indicators of both countries.

Table 4

Distribution of gender, age categories, education, and net monthly income among the respondents

Demographic indicator	**Category**	**Percent (%) of Nigeria respondents**	**Category**	**Percent (%) of Lithuania respondents**
Gender	Male	54.3		48.1

	Female	45.7		51.9
Age Category	18–24	65.3		49.6
	25–34	28.3		41.9
	35–44	5.5		6.2
	45–54	0.9		2.3
Education Level	Secondary school or below	26.5		10.9
	College/Associate degree	11.4		11.6
	Bachelor's degree	55.3		61.2
	Master's degree or higher	6.8		16.3
Monthly Income	Below NGN50,000	29.2	Below EUR500	39.5
	NGN50,000 - NGN149,999	31.5	EUR500 – RUR1,499	33.3
	NGN150,000 - NGN249,999	13.2	EUR1,500 – EUR2,499	16.3
	NGN250,000 – NGN499,999	10	EUR2,500 – EUR3,999	3.9
	NGN500,000 – NGN999,999	9.6	Above EUR4,000	7
	Above NGN1,000,000	6.4		

Source: compiled by the author using research results

Gender. The gender proportion was fairly equal in the sample of 219 people who took part in the survey in Nigeria. The respondents were slightly dominated by male respondents (54.3), with females (45.7) being the next highest. The sample of 129 respondents in Lithuania showed a different situation of a balanced distribution, where the females constituted a

marginally higher percentage of 51.9% against males at 48.1%. This means that no single sample was heavily biased towards a single gender and hence offers a balanced view of both the male and female consumers of the same cultural background.

Age. The two national samples have age groups that indicate a very youthful respondent base, albeit with different concentrations. Nigeria had a very youthful sample, with almost two out of every three (65.3) of the total respondents falling in the 18-24 age bracket. Another 28.3% were between the ages of 25 - 34, i.e., 93.6% of the Nigerian sample was 34 years old and under. The older age groups (35-44 and 45-54) were minimally represented, making up only 5.5% and 0.9%, respectively. The sample in Lithuania, although the young age also dominated, was evenly spread between the two youngest groups. In this case, 49.6% of the respondents were between 18 and 24 years, and 41.9% were between 25 and 34 years. This implies that 91.5% of the Lithuanian sample was also aged 34 and below, with 6.2% and 2.3% of the sample aged 35-44 and 45-54, respectively. The extreme concentration of the respondents below 34 in the two countries is a strong indication that the results of this research are most reflective of the perceptions and behaviour of the young and the elderly respondents.

Education. Respondent education levels were high in both countries, but there were significant variations in the highest level of education. The respondents in the Nigerian sample had a higher percentage of people with a bachelor's degree (55.3%); individuals with a secondary school education or less were 26.5%, with 11.4% and 6.8% having a college/associate degree or a master's degree or higher, respectively. The level of formal education was even greater among the Lithuanian sample. In this case, 61.2% of the respondents had a bachelor's degree, and a high percentage of 16.3% had a master's degree or more. The number of those with secondary education or below was merely 10.9%, and college/associate degrees were only 11.6%. The large percentage of university graduates in both samples, and especially in Lithuania, is a significant situational factor. It implies that the results of the study on the green advertising appeal can be determined by a relatively highly educated population that may be exposed to environmental awareness ideas.

Monthly income. The difference in the income distribution is a factor of the various economic realities and currency scales of the two countries. Among the Nigerian respondents (in Naira, N), the highest percentages were in the lower-middle income groups: 29.2% made less than NGN50,000 and 31.5% made between NGN50,000 and NGN149,999. Those with mid-to-high incomes (NGN150,000 and above) reported 39.1% of the sample. In the case of Lithuanian respondents (in Euros, EUR), the distribution bias was more in the lower part of the offered scale. An impressive 39.5% said that they had a net monthly income of less than EUR

500, and 33.3% had a net monthly income of between EUR 500 and 1,499. The income of EUR 1,500 or higher was reported by only 27.2%. This is an important divergent income profile that contextualises purchase intentions. The difference between the two groups in terms of economic capabilities to act on the eco-friendly intentions, which could be buying high-priced green products, is likely and should be kept in mind when interpreting the results about behavioural intention.

In summary, the demographic analysis reveals two distinct respondent profiles: a very young, bachelor's-degree-holding sample in Nigeria with varied income levels, and a slightly older, even more highly educated sample in Lithuania with a greater concentration in lower income brackets. This background knowledge is critical in explaining the observed analytical results on the effects of the elements of green advertisement on purchase intention in various cultures. Once this demographic background is established, the next step of the study is to test the constructs of reliability of the measurements to guarantee the validity of the findings of the research.

3.2 Reliability of the Constructs

To analyse the impact of green advertising elements on consumer eco-friendly choice behaviour in the digital environment, 6 constructs were used. The reliability of each construct of both surveys were tested using Cronbach's alpha reliability test. In Table 5, Cronbach's Alphas of the respondents from the survey in "Lithuania" and in "Nigeria" are provided.

Table 5

Cronbach's Alpha coefficients of each tested construct in two surveys

Construct	**Number of Items**	**Cronbach's Alpha Nigeria**	**Cronbach's Alpha Lithuania**
Eco-friendly purchase intention	3	0.836	0.866
Eco-labels and certifications	3	0.827	0.788
Message framing	3	0.859	0.823
Nature-related imagery	3	0.867	0.892
Emotional appeals	3	0.845	0.797

Corporate credibility	3	0.873	0.851

All constructs proved good internal consistency, as none of the alpha coefficients of the study constructs were less than 0.78. In both the Nigerian and Lithuanian samples, the value of Cronbach's alpha was between 0.788 and 0.892, which is well within the minimum acceptable reliability level. The construct of eco-labels and certifications in the Lithuanian sample had the lowest alpha value (0.788); even so, that value can be viewed as acceptable reliability. In general, the findings prove that all constructs are valid and can be used in further analyses.

3.3 Normality analysis

Normality of the data was assessed using both the Kolmogorov–Smirnov and Shapiro–Wilk tests for the Nigerian (n = 219) and Lithuanian (n = 129) samples. The results (Table 6) indicated statistically significant deviations from normality for all constructs in both samples ($p < .01$), suggesting a violation of the normality assumption. However, given the relatively large sample sizes, these outcomes were expected, as normality tests are known to be highly sensitive and often detect trivial deviations in large samples. To address this limitation, skewness and kurtosis statistics were also examined and were found to fall within acceptable thresholds (±2). Consistent with the Central Limit Theorem, the data were therefore considered sufficiently normally distributed to justify the use of parametric statistical techniques.

Table 6

Test of Normality

	Survey in Nigeria				Survey in Lithuania			
	Kolmogorov–Smirnov		**Shapiro–Wilk**		**Kolmogorov–Smirnov**		**Shapiro–Wilk**	
Variable	**Statistic**	**Sig.**	**Statistic**	**Sig.**	**Statistic**	**Sig.**	**Statistic**	**Sig.**
Eco-friendly purchase intention	0.108	<0.01	0.972	<0.01	0.24	<0.01	0.893	<0.01
Eco-labels and certifications	0.108	<0.01	0.97	<0.01	0.262	<0.01	0.856	<0.01
Message	0.139	<0.01	0.951	<0.01	0.202	<0.01	0.933	<0.01

framing								
Nature-related imagery	0.106	<0.01	0.961	<0.01	0.194	<0.01	0.927	<0.01
Emotional appeals	0.131	<0.01	0.956	<0.01	0.165	<0.01	0.928	<0.01
Corporate credibility	0.162	<0.01	0.936	<0.01	0.142	<0.01	0.946	<0.01

3.4 Descriptive Statistics

This section provides descriptive statistics of the six constructs in the analysis of the two samples (Nigerian and Lithuanian) in both cases. Table 7 represents the means, standard deviations, skewness, and kurtosis of the research variables. Table 7 indicates that the average score of all the constructs is distributed in the middle to higher part of the scale. Because all the constructs were measured on a five-point Likert scale, the mean values between 3, 4, and 5 were termed as moderate to high.

Table 7

Descriptive Statistics for the construct

	Survey in Nigeria				Survey in Lithuania			
Variable	**Mean**	**Std. Dev.**	**Skewness**	**Kurtosis**	**Mean**	**Std. Dev.**	**Skewness**	**Kurtosis**
Eco-friendly purchase intention	3.2192	1.014	−0.154	−0.718	3.5685	0.87043	−0.920	0.588
Eco-labels and certifications	3.3242	0.93897	−0.282	−0.492	3.6925	0.72002	−1.113	2.193
Message framing	3.4033	1.05224	−0.321	−0.856	3.6796	0.78107	−0.625	0.4
Nature-related imagery	3.2481	0.98658	−0.084	−0.824	3.6408	0.83397	−0.513	0.229

Emotional appeals	3.1689	0.9628	−0.353	−0.750	3.4677	0.77674	−0.598	1.037
Corporate credibility	3.4368	1.06823	−0.407	−0.930	3.6796	0.80838	−0.366	0.049

Source: compiled by the author based on the research results.

The descriptive statistics, as shown in Table 4, indicate that the means of the study constructs in the two countries differ significantly. Emotional appeals of the Nigerian sample had the lowest mean value (M = 3.17), whereas corporate credibility had the maximum mean (M = 3.44). Conversely, in the case of the Lithuanian sample, the eco-friendly purchase intention had the lowest mean (M = 3.57), whereas the eco-labels and certifications, message framing, and corporate credibility had the highest mean values (M = 3.68). In general, mean values in both countries range between 3.17 and 3.69, representing fairly average to positive perceptions of green advertising elements and intention to purchase environmentally friendly products. Since a five-point Likert scale was used, the respondent ratings above 3 would indicate positive ratings.

Going to the distributional properties of the data, skewness and kurtosis were checked with all constructs. The skewness of both Nigeria and Lithuania is within the acceptable range of [-2 to +2], which means that there is a reasonable symmetry of the distributions and responses are not strongly skewed towards one side. The values of the kurtosis are also mostly within acceptable ranges, implying that the distributions are neither too peaked nor too flat. All of these findings suggest that the responses are fairly evenly spread around the mean and do not display extreme departures from normality. Having both the central tendency and the distributional features, the data can be deemed as appropriate for further hypothesis testing.

3.5 Hypothesis testing and analysis for Nigeria and Lithuania

3.5.1 Hypothesis testing and analysis for Nigeria.

$H1_0$: Eco-labels and certifications do not have a significant positive effect on eco-friendly purchase intention.

$H1_1$: Eco-labels and certifications have a significant positive effect on eco-friendly purchase intention.

$H2_0$: Message framing does not have a significant positive effect on eco-friendly purchase intention.

$H2_1$: Message framing has a significant positive effect on eco-friendly purchase intention.

$H3_0$: Nature-related imagery does not have a significant positive effect on eco-friendly purchase intention.

$H3_1$: Nature-related imagery has a significant positive effect on eco-friendly purchase intention.

$H4_0$: Emotional appeals do not have a significant positive effect on eco-friendly purchase intention.

$H4_1$: Emotional appeals have a significant positive effect on eco-friendly purchase intention.

$H5_0$: Corporate credibility does not have a significant positive effect on eco-friendly purchase intention.

$H5_1$: Corporate credibility has a significant positive effect on eco-friendly purchase intention.

Table 8

Regression analysis output for Hypothesis 1 - Hypothesis 5 (Nigeria)

Hypothesis	**Predictor**	**β**	**t-value**	**Sig.**	**R^2**	**Decision**
H1	Eco-labels and certifications	0.54	9.56	0.00	0.30	Reject $H1_0$, Accept $H1_1$
H2	Message framing	0.51	8.61	0.00	0.26	Reject $H2_0$, Accept $H2_1$
H3	Nature-related imagery	0.50	8.44	0.00	0.25	Reject $H3_0$, Accept $H3_1$
H4	Emotional appeals	0.41	6.53	0.00	0.16	Reject $H4_0$, Accept $H4_1$
H5	Corporate credibility	0.48	7.99	0.00	0.23	Reject $H5_0$, Accept $H5_1$

Note: Dependent variable = eco-friendly purchase intention.

The findings indicate that the five aspects of green advertising have a positive and significant influence on the eco-friendly purchase intention of the Nigerian consumers ($p < 0.05$). In particular, eco-labels and certifications were the most significant independent predictors (**β** = 0.54, R^2 = 0.30), followed by the message framing (**β** = 0.51, R^2 = 0.26) and nature-related imagery (**β** = 0.50, R^2 = 0.25). Corporate credibility (**β** = 0.48, R^2 = 0.23) and emotional appeals

(**β** = 0.41, R^2 = 0.16) also had significant positive effects. On the basis of these results, the null hypotheses (H10-H50) were rejected and the alternative hypotheses (H11-H51) were accepted with regard to the Nigerian sample.

$H6_0$: Demographic factors (age, gender, income, and education) do not moderate the relationship between green advertising elements and eco-friendly purchase intention.

$H6_1$: Demographic factors (age, gender, income, and education) significantly moderate the relationship between green advertising elements and eco-friendly purchase intention.

Table 9

Results of Moderation Analysis Testing the Influence of Demographic Factors on the Relationship Between Green Advertising Elements and Eco-Friendly Purchase Intention (Nigeria)

Green Advertising Element	**Demographic Factors**			
Construct	**Age**	**Income**	**Education**	**Gender**
Eco Labels	β = .020, p = .728	β = .052, p = .364	β = -.023, p = .699	β = .172, p = .322
Message Farming	β = -.070, p = .242	β = .045, p = .449	β = .055, p = .360	β = .253, p = .166
Nature Imagery	β = -.083, p = .116	β = .050, p = .409	β = .043, p = .474	β = .049, p = .787
Emotional Appeals	β = -.044, p = .503	β = .066, p = .291	β = .010, p = .879	β = -.069, p = .718
Corporate Credibility	β = -.025, p = .684	β = -.008, p = .901	β = -.041, p = .501	β = -.050, p = .788

Note: β = standardised coefficient for the interaction term.

The present study, according to the moderation analysis, did not identify any statistically significant moderate effects of demographic factors, which include age, monthly income, education level, or gender, on the relationship between the elements of green advertising and the eco-friendly purchase intention among Nigerian consumers. The interaction terms of all five advertising constructs (eco labels, message framing, nature imagery, emotional appeals, and

corporate credibility) were non-significant ($p > 0.05$), indicating that the effects of those advertising strategies on the purchase intentions are not different among the various demographic segments. This leads to the support of $H6_0$ and the rejection of $H6_1$. These findings indicate that green advertising appeals apply to the entire population under investigation, which means that marketers in Nigeria can use the strategies without making modifications based on demographics.

3.5.2 Hypothesis testing and analysis for Lithuania.

$H1_0$: Eco-labels and certifications do not have a significant positive effect on eco-friendly purchase intention.

$H1_1$: Eco-labels and certifications have a significant positive effect on eco-friendly purchase intention.

$H2_0$: Message framing does not have a significant positive effect on eco-friendly purchase intention.

$H2_1$: Message framing has a significant positive effect on eco-friendly purchase intention.

$H3_0$: Nature-related imagery does not have a significant positive effect on eco-friendly purchase intention.

$H3_1$: Nature-related imagery has a significant positive effect on eco-friendly purchase intention.

$H4_0$: Emotional appeals do not have a significant positive effect on eco-friendly purchase intention.

$H4_1$: Emotional appeals have a significant positive effect on eco-friendly purchase intention.

$H5_0$: Corporate credibility does not have a significant positive effect on eco-friendly purchase intention.

$H5_1$: Corporate credibility has a significant positive effect on eco-friendly purchase intention.

Table 10

Regression analysis output for Hypothesis 1 - Hypothesis 5 (Lithuania)

Hypothesis	Predictor	β	t	Sig.	R^2	Decision
H1	Eco-labels and certifications	0.59	8.18	0.00	0.35	Reject $H1_0$, Accept $H1_1$

H2	Message framing	0.51	6.75	0.00	0.26	Reject $H2_0$, Accept $H2_1$
H3	Nature-related imagery	0.48	6.18	0.00	0.23	Reject $H3_0$, Accept $H3_1$
H4	Emotional appeals	0.56	7.52	0.00	0.31	Reject $H4_0$, Accept $H4_1$
H5	Corporate credibility	0.40	4.94	0.00	0.16	Reject $H5_0$, Accept $H5_1$

Note: Dependent variable = eco-friendly purchase intention.

The results suggest that the five green aspects of advertising have a positive and statistically significant influence on eco-friendly purchase intention among Lithuanian consumers ($p < 0.05$). Eco-labels and certifications were also found to be a strong independent predictor ($\beta = 0.59$, $R^2 = 0.35$), and emotional appeals were also found to be a strong predictor ($\beta = 0.56$, $R^2 = 0.31$). Similarly, message framing ($\beta = 0.51$, $R^2 = 0.26$) and nature-related imagery ($\beta = 0.48$, $R^2 = 0.23$) were observed to have a significant positive impact on increasing eco-friendly purchase intention. Corporate credibility, which was relatively weaker, was still an important positive predictor (**β** = 0.40, $R^2 = 0.16$). On the basis of these findings, the null hypotheses (H10-H50) were rejected and the alternative hypotheses (H11-H51) accepted in the Lithuanian sample.

$H6_0$: Demographic factors (age, gender, income, and education) do not moderate the relationship between green advertising elements and eco-friendly purchase intention.

$H6_1$: Demographic factors (age, gender, income, and education) significantly moderate the relationship between green advertising elements and eco-friendly purchase intention.

Table 11

Results of Moderation Analysis Testing the Influence of Demographic Factors on the Relationship Between Green Advertising Elements and Eco-Friendly Purchase Intention (Lithuania)

Green Advertising Element	**Demographic Factors**			
Construct	**Age**	**Income**	**Education**	**Gender**

Eco Labels	β = -.018, p = .802	β = -.026, p = .736	β = .040, p = .585	β = .009, p = .968
Message Farming	β = .034, p = .664	β = -.032, p = .692	β = .011, p = .890	β = -.482, p = .054*
Nature Imagery	β = .012, p = .878	β = .093, p = .260	β = -.066, p = .403	β = -.206, p = .408
Emotional Appeals	β = -.003, p = .972	β = .041, p = .593	β = .057, p = .472	β = -.226, p = .343
Corporate Credibility	β = -.038, p = .647	β = -.052, p = .542	β = -.024, p = .775	β = -.180, p = .513

The moderation analysis of the study indicated that the demographic factors (age, monthly income, education level, or gender) did not have statistically significant moderating effects on the relationship between the green advertising elements and eco-friendly purchase intention of the Lithuanian consumers. The terms of interaction that tested significantly ($p > 0.05$) were non-significant, and the exception was the Message Farming x Gender, which was close but did not reach the traditional significant level ($p = 0.054$). This leads to the support of $H6_0$ and the rejection of $H6_1$. These findings suggest that the green advertising appeals are universally effective among demographic groups within Lithuania and that marketers can be able to broadly use them without necessarily necessitating the use of demographic-specific approaches.

3.6 Pearson Correlation analysis

Table 12

Pearson Correlation Coefficients Between Green Advertising Elements and Eco-Friendly Purchase Intention in Nigeria and Lithuania

Green Advertising Element	Lithuania (r)	Nigeria (r)
Eco Labels	.587**	.544**
Message Farming	.514**	.505**
Nature Imagery	.481**	.497**
Emotional Appeals	.555**	.405**

Corporate Credibility	.402**	.477**

Note: **p < .01 (2-tailed); r = Pearson correlation coefficient with Eco-Friendly Purchase Intention ;

n(Lithuania) = 129, n(Nigeria) = 219.

Interpretation: The Pearson correlation test indicates that the five components of green advertising are significantly and positively related to eco-friendly purchasing intention in both countries (p < .01). Emotional appeals have the highest correlation in Lithuania (r = .555), closely followed by ecolabels (r = .587). Eco labels in Nigeria show the best correlation (r = .544), followed by nature imagery (r = .497) and corporate credibility (r = .477). The interrelationships of the independent variables in the two countries are also significant (between .402 and .587), which implies that the green advertising factors might be conceptually overlapping or multicollinearity must be taken into account in future regressions. In general, these results serve as supporting evidence that the elements of green advertising are always linked to eco-friendly intentions to purchase among consumers in both cultural settings.

3.7 T-tests and ANOVA

To compare the mean scores on the important variables in the two countries and among various demographic groups (e.g., the generational cohorts).

Table 13

Independent Samples t-Test Results – Nigeria vs. Lithuania

Variable	Nigeria Mean (SD)	Lithuania Mean (SD)	Mean Diff.	t-value	p-value	Cohen's d
EcoFriendlyMean	3.22 (1.01)	3.57 (0.87)	-0.34	-3.40	< .001	-0.36
EcoLabelsMean	3.32 (0.94)	3.69 (0.72)	-0.37	-4.11	< .001	-0.43
MessageFarmingMean	3.40 (1.05)	3.68 (0.78)	-0.28	-2.79	0.01	-0.29
NatureImageryMean	3.25 (0.99)	3.64 (0.83)	-0.39	-3.96	< .001	-0.42
EmotionalAppealsMean	3.17 (0.96)	3.47 (0.78)	-0.30	-3.17	0.00	-0.33
CorporateCredib	3.44 (1.07)	3.68 (0.81)	-0.24	-2.40	0.02	-0.25

ilityMean						

Interpretation: The independent samples t-tests showed statistically significant differences between the Nigerian and Lithuanian respondents on cross-cultural differences in all constructs measured ($p < .05$). Lithuanian consumers also displayed a higher mean score of eco-friendly purchase intention and all five aspects of green advertising than the Nigerian consumers did. The effect size (Cohen's d) was also either small or moderate (-0.25 to -0.43), which shows that there are significant differences in the perception of green advertising and its connection to eco-friendly intentions in these cultural settings.

Table 14

ANOVA Summary – Eco-Friendly Purchase Intention by Demographic Factors (Combined Dataset: Nigeria + Lithuania)

Demographic Factor	Groups (n)	Mean (SD)	F-statistic (df)	p-value	Significant Group Differences (Post-hoc)
Age	18–24 (207) 25–34 (116) 35–44 (20) 45–54 (5)	3.23 (0.98) 3.54 (0.94) 3.23 (1.03) 4.07 (0.92)	F(3, 344) = 3.56	0.014	No pairwise differences (Tukey HSD, p = .084). 45–54 group small (n=5).
Education Level	Secondary or below (72) College/Associate (40) Bachelor’s (200) Master’s or higher (36)	3.31 (0.90) 3.29 (0.98) 3.38 (0.99) 3.31 (1.09)	F(3, 344) = 0.16	.920 (ns)	No significant differences (Tukey HSD, p = .964)
Gender	Male (181) Female (167)	3.28 (1.03) 3.43 (0.92)	F(1, 346) = 1.98	.161 (ns)	No significant difference (p > .05)

Interpretation: The effect of age on the eco-friendly purchase intention is statistically significant but weak. Though the ANOVA was significant ($p = .014$), post-hoc tests failed to establish any specific pairwise differences, in part because of the small sample size in the oldest group.

Eco-friendly purchase intention is not significantly predicted by education ($p = .920$), which is why the level of formal education does not distinguish the eco-friendly intentions of consumers in the given cross-cultural sample.

There is also no statistically significant difference between the genders on the purchase intention of eco-friendly products ($p = .161$), although there is a slight difference in the means, with the female respondents tending to support the purchase intention. This is in line with previous moderation findings, which did not reveal any significant gender interactions.

Income was excluded from ANOVA analysis because it was measured in different currencies across the two countries, making direct statistical comparison inappropriate.

In general, the most distinguishing demographic variable in the case of eco-friendly purchase intention in the combined sample of Nigeria and Lithuania is age, followed by education, and gender does not influence the purchase intention.

Statistical Output Interpretation

The quantitative analysis indicates that the five elements of green advertising, eco-labels, message framing, nature imagery, and corporate credibility have a significant and positive impact on eco-friendly purchase intention in both Nigeria and Lithuania (all $p < .001$), which supports hypotheses H1 through H5. Nevertheless, the magnitude of these effects was culturally dissimilar: eco-labels were the most predictive in Nigeria ($b = 0.54$), and emotional appeals were the strongest in Lithuania ($b = 0.56$). This demonstrates that the five advertising elements used have all worked in both countries, but what works best in Nigeria is not necessarily the same as what works best in Lithuania.

Moreover, hypothesis H6 was also rejected, where the demographics (age, gender, income, and education) did not significantly mediate the relationship between any green advertisement element and purchase intention in both countries. The variables were all not significant ($p > .05$). This is an important study that implies that effective green advertisements have a wide appeal spanning various consumer groups within a culture, so that less demographically specific advertising is necessary.

These regression results were supported by correlation analysis that found a high positive correlation between all advertising factors and eco-friendly intention in both samples ($r = .402$ to $.587$, all $p = .01$). Independent samples t-tests indicated a significant difference in the mean scores of cross-cultural differences, with the Lithuanian respondents recording all-around higher ratings on all the variables used ($p < .05$, Cohen's d -0.25 to -0.43).

Finally, there were no significant differences in terms of education level ($p = .920$) or gender ($p = .161$). Overall, the findings confirm strategic green advertising as effective regardless of culture and demographics, although it needs cultural intelligence regarding its focus and cultural acceptance.

CONCLUSION AND RECOMMENDATION

Conclusions. The purpose of this thesis was to examine the extent to which the elements of green advertising and demographic factors determine eco-friendly purchase intentions among consumers in the digital environment. According to a synthesis of scientific sources, the research methodology used, and the empirical findings related to the cross-cultural studies carried out in Nigeria and Lithuania, one can make several conclusions:

1. According to theoretical analysis, green advertising is a persuasive communication device that diverts attention from the traditional benefits of the product to environmental performance and corporate social responsibility. The integration of the Theory of Planned Behaviour (TPB), the Elaboration Likelihood Model (ELM), and the Value-Belief-Norm Theory (VBN) provides a multidimensional explanation of how motivation, persuasion processes, and moral norms jointly shape eco-friendly consumer decision-making.

2. The literature review and empirical findings demonstrate that the combination of certain elements of green advertising, such as eco-labels, message framing, images of nature, emotional appeal and corporate credibility, is considered to be a critical stimulus affecting the consumer attitude, trust, and perceived control over their behaviour. These positive attitudes, according to the Theory of Planned Behaviour, are major factors behind the purchase intention of eco-friendly products. However, the study also acknowledges the persistent intention–behaviour gap, which is commonly linked to factors such as high product costs, limited availability, and consumer mistrust.

3. The findings also highlight the distinctive role of the digital environment in reshaping green advertising practices. While digital platforms enhance targeting, interactivity, and transparency, they also intensify consumer scrutiny and increase the risks and consequences of greenwashing. As a result, corporate credibility emerges as both more fragile and more critical in digital green advertising, given consumers' ability to rapidly verify claims and share scepticism.

4. Regarding the impact of demographic elements (age, gender, income, and education) and cultural context on green purchase intention, the empirical results show context-dependent relationships. Although the younger consumers (Gen Z, Millennials), and those higher income or education levels tends to be associated with a higher green intention, these patterns are not universal. The differences observed between Nigeria and Lithuania indicate that cultural and economic contexts play an important mediating role in shaping eco-friendly purchase intentions.

5. The empirical study proves that the five components of green advertising under investigation, namely, eco-labels and certifications, message framing, nature-related imagery, emotional appeals, and corporate credibility, in both Nigeria and Lithuania have a statistically significant and positive impact on the purchase intention to buy environmentally friendly products. This observation adds to the combined theoretical model and shows that central-route processing (e.g., credible eco-labels) and peripheral-route processing (e.g., visual images and emotional appeals) can both be effective in influencing consumer choices in the digital environment.

6. Considering the moderating effect of demographics, the empirical findings reveal that, in both countries, demographic variables (age, gender, and education) did not significantly alter the relationship between green advertising elements and purchase intention. This suggests that the psychological processes of persuasion as described by TPB, VBN, and ELM are universal among various demographic groups within the examined cultural context, indicating the society-wide applicability of well-designed green advertising strategies.

7. Notable cross-cultural differences were identified between Nigerian and Lithuanian consumers. Lithuanian respondents reported higher overall perceptions of green advertising and stronger eco-friendly purchase intentions. Furthermore, the relative influence of green advertising elements differed across contexts: eco-labels exerted the strongest influence in Nigeria, while emotional appeals were more influential in Lithuania. This finding indicates that while the fundamental drivers of eco-friendly intention are shared, cultural context shapes their relative importance and baseline effectiveness.

8. Finally, the research supports the primary role of trust in solving the intention-behaviour gap. Corporate credibility and trustworthy environmental statements lead to the perceived reduction in risk and uncertainty, which in turn facilitates the conversion of the intentions of being environmentally friendly into actual purchase behaviour. This observation is very much similar to the concept of perceived behavioural control proposed by the TPB, the central-route processing proposed by ELM and the emphasis of norm activation proposed by VBN, and it is important to point out that trust is a key antecedent factor to behaviour change.

Recommendation. Some recommendations are made based on the results of this study to the practitioners, as well as to future research.

1. Considering the empirical results that all five green advertising elements have a strong positive impact on eco-friendly purchase intention both in Nigeria and Lithuania, marketers are encouraged to implement an integrated advertising strategy, which integrates elements of

informational cues (e.g., credible eco-labels and transparency) with affective cues (e.g., nature imagery and emotional appeals) in order to appeal to consumers at various levels of involvement.

2. The creation and communication of corporate credibility is the main constituent of any green campaign that practitioners need to focus on. As credibility moderates the success of all other factors and is essential in alleviating greenwashing scepticism, companies should put money into claims that are verifiable, third-party-checked, steady sustainability practices, and clear communications on all online platforms.

3. From a managerial perspective, the findings suggest that green advertising strategies should be tailored to national and cultural contexts. In Nigeria, eco-labels and certifications emerged as the strongest predictor of eco-friendly purchase intention, indicating that consumers place greater emphasis on verifiable and standardised environmental information. Consequently, marketers operating in this market should prioritise credible certifications, transparency, and factual messaging. In contrast, emotional appeals were most influential in Lithuania, implying that consumers respond more strongly to affective and value-driven communication.

4. To add up, for policymakers and regulators, the research underscores the need to bolster consumer trust by combating greenwashing. Some of the recommendations that can be made are to create and implement tougher policies in terms of environmental claims in digital marketing, establish standardised and recognisable eco-labelling systems, and establish platforms where consumers can gain the skills to critically assess green claims.

5. Further studies must go past the simplest demographics (such as age or income) to discover what truly drives green consumers. Instead, they should conduct research into such aspects as the personal values of a person, how much they are concerned about the environment, or how much they trust companies in general. These more profound traits would prove to be more helpful in segmenting and comprehending audiences in green advertising.

Limitations and Future Research. Despite the contributions of this thesis, several limitations should be acknowledged, which also provide directions for future research.

1. The cross-sectional research design does not allow the development of cause-effect links between green advertising elements and the eco-friendly purchase intention. Future research may use longitudinal or experimental research designs to capture the causal effects and change in behaviour over time.

2. The study measures intended rather than actual eco-friendly purchasing behaviour. While purchase intention is a strong predictor of behaviour, it does not always translate into real purchasing actions. Future research should therefore examine actual purchasing behaviour to better understand the intention–behaviour gap.

3. The findings are based on self-reported data collected through an online survey, which may be affected by social desirability bias and online sampling bias. In addition, the sample showed an uneven age distribution, with younger respondents being over-represented. Future studies should aim for more balanced samples and consider combining online and offline data collection methods.

4. Demographic variables were examined together as moderators to assess their overall moderating influence, rather than developing separate hypotheses for age, gender, income, and education. This approach was adopted to keep the research model simple and easy to interpret. However, future studies could examine each demographic variable separately, as this may reveal more detailed differences in how demographic characteristics influence consumer responses.

5. Finally, future research could extend this study by exploring additional cultural contexts, specific product categories, or the role of digital platforms and influencers in shaping consumer responses to green advertising.

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ANNEXES

Annexes 1

QUESTIONNAIRE ON THE IMPACT OF GREEN ADVERTISING ELEMENTS ON CONSUMERS' ECO-FRIENDLY PURCHASE INTENTION IN THE DIGITAL ENVIRONMENT

SECTION A: Screening and Informed Consent

Dear Participant,

You are invited to take part in an academic research study exploring "The Impact of Green Advertising Elements on Consumers' Eco-Friendly Purchase Intention in the Digital Environment. This study is being conducted by Goodness Todiesonume Preye, a master's student at Vilnius University.

- **Purpose:** The study aims to understand how different elements of online green advertising influence consumer choices.
- **Procedure:** The survey will take approximately 7-10 minutes to complete. It will ask about your perceptions of various advertising elements and your purchase intentions.
- **Confidentiality:** Your anonymity is guaranteed. No personally identifiable information (like your name or email) will be collected. All data will be aggregated for analysis, and no individual can be identified in any published results.
- **Voluntary Participation:** Your participation is entirely voluntary. You have the right to withdraw at any point without penalty.

Contact: If you have any questions about this research, please contact preyegoodness@gmail.com.

By clicking "I Consent and Wish to Proceed" below, you indicate that you have read and understood the information above, and you voluntarily agree to participate in this study.

I Consent and Wish to Proceed

- Yes

Are you 18 years of age or older?

- Yes
- No

SECTION B: Eco-friendly Purchase Intention.

Please think about your general approach to shopping. For each of the statements below, indicate how likely you are to behave in the described way.

All items use a 5-point Likert scale:

- 1 = Very Unlikely (VU)
- 2 = Unlikely (U)
- 3 = Neutral (N)
- 4 = Likely (L)
- 5 = Very Likely (VL)

S/No	Statement	VU (1)	U(2)	N (3)	L (4)	VL(5)
Eco-friendly Purchase Intention.						
1	I intend to buy eco-friendly products instead of conventional ones in the next few months.					
2	I will make a special effort to buy from companies that are environmentally responsible.					
3	The likelihood that I would pay a premium for an eco-friendly product is high.					

SECTION C: Perceptions of Online Green Advertising Elements

Please think about the types of environ

mental or "green" advertisements you see online. To what extent do you agree or disagree with the following statements about what makes these ads persuasive?

All items use a 5-point Likert scale:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neutral
- 4 = Agree
- 5 = Strongly Agree

S/No	Statement	SD (1)	D (2)	N (3)	A (4)	SA (5)
Eco-labels and Certifications						
1	When I see a trusted eco-label (e.g., Energy Star, EU Ecolabel, or Fairtrade) on a product in an ad, I feel more confident about its environmental claims.					
2	Products with third-party environmental certifications are more appealing to me					
3	Eco-labels help me quickly identify which products are genuinely better for the environment.					
Message Framing						
7	I find ads that focus on the positive benefits of buying green (e.g., "You can help save the planet") more motivating than those that focus on negative consequences.					
8	Ad messages that are concrete and specific (e.g., "This bottle is made from 100% recycled plastic") are more convincing than vague ones (e.g., "This product is green").					
9	I am more persuaded by ads that frame environmental action as a collective social effort rather than just an individual one.					
Nature-related Imagery						

13	Online ads that feature beautiful images of nature (e.g., forests, clean oceans, wildlife) create a positive feeling for me about the brand.					
14	Seeing nature imagery in an ad makes me more inclined to believe the company cares about the environment.					
15	These visuals help me connect emotionally with the product's environmental benefits.					
Emotional Appeals						
18	Ads that evoke feelings of guilt about environmental damage make me more likely to consider buying the eco-friendly product.					
19	I am motivated by ads that make me feel hopeful and proud when I consider making an eco-friendly choice.					
20	Emotional appeals (e.g., warmth, concern) in green ads are more effective at capturing my attention than purely factual ones.					
Corporate Credibility						
24	I am more likely to believe a green ad if the company has a strong reputation for being environmentally responsible.					
25	I am skeptical of environmental					

	claims from companies I do not perceive as authentic.					
26	A company's past actions and transparency determine how much I trust their current green advertisements.					

Attention Check: To confirm you are reading this question, please select "Disagree"

- Agree
- Disagree

SECTION D: Finally, please provide some basic background information. All data is anonymous and confidential.

1. **Age:**
    - 18-24
    - 25-34
    - 35-44
    - 45-54
    - 54 above
2. **Gender:**
    - Male
    - Female
    - Prefer not to say
3. **Highest educational qualification:**
    - Secondary School or below
    - College/Associate Degree
    - Bachelor's Degree
    - Master's Degree or higher
4. **Country of Residence:**
    - Nigeria
    - Lithuania
    - Other: _____
5. **Nigerians:** What is your approximate average monthly income?
    - Below ₦50,000

- ₦50,000 – ₦149,999
- ₦150,000 – ₦249,999
- ₦250,000 – ₦499,999
- ₦500,000 – ₦999,999
- Above 1,000,000

6. **Lithuanians:** What is your approximate average monthly income?
    - Below €500
    - €500 – €1499
    - €1,500 – €2,499
    - €2,500 – €3,999
    - Above €4,000
    - Prefer not to say

Thank you very much

Goodness Todiesonume Preye

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Annexes 2

a. *Descriptive Statistics for the construct Nigeria*

Statistics

		Gender:	Highest Level of Education Completed:	What is your approximate average monthly income?	Age Group
N	Valid	219	219	219	219
	Missing	0	0	0	0
Mean		1.46	2.42	2.58	1.4201
Std. Deviation		.499	.957	1.543	.64021
Skewness		.175	-.465	.819	1.467
Std. Error of Skewness		.164	.164	.164	.164
Kurtosis		-1.987	-1.097	-.447	1.865
Std. Error of Kurtosis		.327	.327	.327	.327
Minimum		1	1	1	1.00
Maximum		2	4	6	4.00

b. Descriptive Statistics for the construct Lithuania

Statistics

		Age Group	Gender:	Highest Level of Education Completed:	What is your approximate average monthly income?
N	Valid	129	129	129	129
	Missing	0	0	0	0
Mean		1.6124	1.52	2.83	2.05
Std. Deviation		.71052	.502	.830	1.161
Skewness		1.121	-.078	-.835	1.139
Std. Error of Skewness		.213	.213	.213	.213
Kurtosis		1.341	-2.025	.432	.661
Std. Error of Kurtosis		.423	.423	.423	.423
Minimum		1.00	1	1	1
Maximum		4.00	2	4	5

Annexes 3

a. Cronbach's Alpha coefficients of Eco-friendly Purchase Intention in Nigeria

Reliability Statistics[a]

Cronbach's Alpha	N of Items
.836	3

a. Country = Nigeria

b. Cronbach's Alpha coefficients of Eco-friendly Purchase Intention in Lithuania

Reliability Statistics[a]

Cronbach's Alpha	N of Items
.866	3

a. Country = Lithuania

c. Cronbach's Alpha coefficients of Eco-labels and Certification in Nigeria

Reliability Statistics[a]

Cronbach's Alpha	N of Items
.827	3

a. Country = Nigeria

d. Cronbach's Alpha coefficients of Eco-labels and Certification in Lithuania

Reliability Statistics[a]

Cronbach's Alpha	N of Items
.788	3

a. Country = Lithuania

e. Cronbach's Alpha coefficients of Message Farming in Nigeria

Reliability Statistics[a]

Cronbach's Alpha	N of Items
.859	3

a. Country = Nigeria

f. Cronbach's Alpha coefficients of Message Farming in Lithuania

Reliability Statistics[a]

Cronbach's Alpha	N of Items
.823	3

a. Country = Lithuania

g. Cronbach's Alpha coefficients of Nature-related Imagery in Nigeria

Reliability Statistics[a]

Cronbach's Alpha	N of Items
.867	3

a. Country = Nigeria

h. Cronbach's Alpha coefficients of Nature-related Imagery in Lithuania

Reliability Statistics[a]

Cronbach's Alpha	N of Items
.892	3

a. Country = Lithuania

Annexes 4

a. Test of Normality for Nigeria Constructs

Tests of Normality[a]

	Kolmogorov-Smirnov[b]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
EcoFriendlyMean	.108	219	<.001	.972	219	<.001
EcoLabelsMean	.108	219	<.001	.970	219	<.001
MessageFarmingMean	.139	219	<.001	.951	219	<.001
NatureImageryMean	.106	219	<.001	.961	219	<.001
EmotionalAppealsMean	.131	219	<.001	.956	219	<.001
CorporateCredibilityMean	.162	219	<.001	.936	219	<.001

a. Country = Nigeria

b. Lilliefors Significance Correction

b. Test of Normality for Lithuania Constructs

Tests of Normality[a]

	Kolmogorov-Smirnov[b]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
EcoFriendlyMean	.240	129	<.001	.893	129	<.001
EcoLabelsMean	.262	129	<.001	.856	129	<.001
MessageFarmingMean	.202	129	<.001	.933	129	<.001
NatureImageryMean	.194	129	<.001	.927	129	<.001
EmotionalAppealsMean	.165	129	<.001	.928	129	<.001
CorporateCredibilityMean	.142	129	<.001	.946	129	<.001

a. Country = Lithuania

b. Lilliefors Significance Correction

Annexes 5

a. Regression analysis output for Hypothesis 1 (Nigeria)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.544[a]	.296	.293	.85253

a. Predictors: (Constant), EcoLabelsMean

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.265	.212		5.956	<.001
	EcoLabelsMean	.588	.061	.544	9.560	<.001

a. Dependent Variable: EcoFriendlyMean

b. Regression analysis output for Hypothesis 2 (Nigeria)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.505[a]	.255	.251	.87733

a. Predictors: (Constant), MessageFarmingMean

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.564	.201		7.774	<.001
	MessageFarmingMean	.486	.056	.505	8.614	<.001

a. Dependent Variable: EcoFriendlyMean

c. Regression analysis output for Hypothesis 3 (Nigeria)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.497[a]	.247	.244	.88182

a. Predictors: (Constant), NatureImageryMean

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.559	.205		7.590	<.001
	NatureImageryMean	.511	.061	.497	8.441	<.001

a. Dependent Variable: EcoFriendlyMean

d. Regression analysis output for Hypothesis 4 (Nigeria)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.405[a]	.164	.160	.92919

a. Predictors: (Constant), EmotionalAppealsMean

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.867	.216		8.626	<.001
	EmotionalAppealsMean	.427	.065	.405	6.528	<.001

a. Dependent Variable: EcoFriendlyMean

e. Regression analysis output for Hypothesis 5 (Nigeria)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.477[a]	.227	.224	.89337

a. Predictors: (Constant), CorporateCredibilityMean

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.664	.204		8.163	<.001
	CorporateCredibilityMean	.453	.057	.477	7.990	<.001

a. Dependent Variable: EcoFriendlyMean

Annexes 6

a. Result of Moderation Analysis Testing the Influence of Age on the Relationship Between Eco Labels & Certification and Eco-Friendly Purchase Intention (Nigeria)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.217	.058		55.861	<.001
	EcoLabels_Centering	.582	.062	.539	9.432	<.001
	AgeGroup_C	.099	.091	.062	1.089	.277
2	(Constant)	3.215	.058		55.532	<.001
	EcoLabels_Centering	.581	.062	.538	9.375	<.001
	AgeGroup_C	.098	.091	.062	1.081	.281
	EcoL_Age_Int	.031	.090	.020	.348	.728

a. Dependent Variable: EcoFriendlyMean

b. Result of Moderation Analysis Testing the Influence of Age on the Relationship Between Message Farming and Eco-Friendly Purchase Intention (Nigeria)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.218	.059		54.147	<.001
	AgeGroup_C	.002	.095	.001	.019	.985
	MessageFarming_C	.486	.058	.505	8.390	<.001
2	(Constant)	3.234	.061		53.031	<.001
	AgeGroup_C	.024	.097	.015	.251	.802
	MessageFarming_C	.480	.058	.499	8.266	<.001
	MessageF_Age_Int	-.113	.097	-.070	-1.174	.242

a. Dependent Variable: EcoFriendlyMean

c. Result of Moderation Analysis Testing the Influence of Age on the Relationship Between Nature-related Imagery and Eco-Friendly Purchase Intention (Nigeria)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.220	.060		53.952	<.001
	AgeGroup_C	.052	.095	.033	.547	.585
	NatureImagery_C	.506	.061	.492	8.238	<.001
2	(Constant)	3.235	.060		53.699	<.001
	AgeGroup_C	.065	.095	.041	.683	.495
	NatureImagery_C	.507	.061	.494	8.291	<.001
	Naturel_Age_Int	-.154	.098	-.093	-1.580	.116

a. Dependent Variable: EcoFriendlyMean

d. Result of Moderation Analysis Testing the Influence of Income on the Relationship Between Eco Labels & Certification and Eco-Friendly Purchase Intention (Nigeria)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.217	.058		55.735	<.001
	MonthlyIncome_C	-.017	.037	-.026	-.452	.652
	EcoLabels_Centering	.587	.062	.544	9.528	<.001
2	(Constant)	3.218	.058		55.718	<.001
	MonthlyIncome_C	-.013	.038	-.020	-.344	.731
	EcoLabels_Centering	.587	.062	.544	9.524	<.001
	EcoL_Income_Int	.037	.041	.052	.910	.364

a. Dependent Variable: EcoFriendlyMean

e. Result of Moderation Analysis Testing the Influence of Education Level on the Relationship Between Emotional Appeals and Eco-Friendly Purchase Intention (Nigeria)

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.220	.063		51.162	<.001
	EducationLevel_C	.014	.066	.013	.206	.837
	EmotionalAppeals_C	.428	.066	.406	6.513	<.001
2	(Constant)	3.220	.063		50.949	<.001
	EducationLevel_C	.013	.066	.012	.197	.844
	EmotionalAppeals_C	.426	.066	.405	6.422	<.001
	EmotionalA_EL_Int	.011	.071	.010	.153	.879

a. Dependent Variable: EcoFriendlyMean

Annexes 7

a. Regression analysis output for Hypothesis 1 (Lithuania)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.587[a]	.345	.340	.70733

a. Predictors: (Constant), EcoLabelsMean

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.947	.327		2.900	.004
	EcoLabelsMean	.710	.087	.587	8.175	<.001

a. Dependent Variable: EcoFriendlyMean

b. Regression analysis output for Hypothesis 2 (Lithuania)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.514[a]	.264	.258	.74964

a. Predictors: (Constant), MessageFarmingMean

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.461	.319		4.580	<.001
	MessageFarmingMean	.573	.085	.514	6.751	<.001

a. Dependent Variable: EcoFriendlyMean

c. Regression analysis output for Hypothesis 3 (Lithuania)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.481[a]	.231	.225	.76622

a. Predictors: (Constant), NatureImageryMean

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.742	.303		5.743	<.001
	NatureImageryMean	.502	.081	.481	6.179	<.001

a. Dependent Variable: EcoFriendlyMean

Annexes 8

a. Result of Moderation Analysis Testing the Influence of Age on the Relationship Between Eco Labels & Certification and Eco-Friendly Purchase Intention (Lithuania)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.567	.062		57.247	<.001
	EcoLabels_C	.706	.087	.584	8.114	<.001
	Age_C	.084	.088	.069	.954	.342
2	(Constant)	3.567	.063		56.981	<.001
	EcoLabels_C	.709	.088	.586	8.045	<.001
	Age_C	.085	.088	.069	.955	.341
	EcoL_Age_Int	-.030	.119	-.018	-.252	.802

a. Dependent Variable: EcoFriendlyMean

b. Result of Moderation Analysis Testing the Influence of Income on the Relationship Between Message Farming and Eco-Friendly Purchase Intention (Lithuania)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.569	.065		55.040	<.001
	MonthlyIncome_C	-.132	.056	-.177	-2.358	.020
	MessageF_C	.561	.083	.504	6.722	<.001
2	(Constant)	3.568	.065		54.757	<.001
	MonthlyIncome_C	-.131	.056	-.175	-2.329	.021
	MessageF_C	.573	.089	.515	6.423	<.001
	MessageF_Income_Int	-.026	.066	-.032	-.397	.692

a. Dependent Variable: EcoFriendlyMean

c. Result of Moderation Analysis Testing the Influence of Education Level on the Relationship Between Nature-related Imagery and Eco-Friendly Purchase Intention (Lithuania)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.568	.068		52.855	<.001
	EducationLevel_C	-.075	.082	-.072	-.915	.362
	NatureImagery_C	.509	.082	.488	6.235	<.001
2	(Constant)	3.574	.068		52.603	<.001
	EducationLevel_C	-.081	.082	-.077	-.985	.327
	NatureImagery_C	.520	.083	.498	6.283	<.001
	Naturel_EL_Int	-.086	.102	-.066	-.839	.403

a. Dependent Variable: EcoFriendlyMean

Annexes 9

a. *Pearson Correlation Coefficients Between Green Advertising Elements and Eco-Friendly Purchase Intention in Nigeria*

Correlations[a]

		EcoFriendlyMean	EcoLabelsMean	MessageFarmingMean	NatureImageryMean	EmotionalAppealsMean	CorporateCredibilityMean
EcoFriendlyMean	Pearson Correlation	1	.544**	.505**	.497**	.405**	.477**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001
	N	219	219	219	219	219	219
EcoLabelsMean	Pearson Correlation	.544**	1	.701**	.677**	.653**	.667**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001
	N	219	219	219	219	219	219
MessageFarmingMean	Pearson Correlation	.505**	.701**	1	.751**	.717**	.753**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001
	N	219	219	219	219	219	219
NatureImageryMean	Pearson Correlation	.497**	.677**	.751**	1	.757**	.693**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001
	N	219	219	219	219	219	219
EmotionalAppealsMean	Pearson Correlation	.405**	.653**	.717**	.757**	1	.705**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001
	N	219	219	219	219	219	219
CorporateCredibilityMean	Pearson Correlation	.477**	.667**	.753**	.693**	.705**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	
	N	219	219	219	219	219	219

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

a. Country = Nigeria

b. *Pearson Correlation Coefficients Between Green Advertising Elements and Eco-Friendly Purchase Intention in Lithuania*

Correlations[a]

		EcoFriendlyMean	EcoLabelsMean	MessageFarmingMean	NatureImageryMean	EmotionalAppealsMean	CorporateCredibilityMean
EcoFriendlyMean	Pearson Correlation	1	.587**	.514**	.481**	.555**	.402**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001
	N	129	129	129	129	129	129
EcoLabelsMean	Pearson Correlation	.587**	1	.723**	.673**	.605**	.523**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001
	N	129	129	129	129	129	129
MessageFarmingMean	Pearson Correlation	.514**	.723**	1	.713**	.609**	.601**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001
	N	129	129	129	129	129	129
NatureImageryMean	Pearson Correlation	.481**	.673**	.713**	1	.651**	.510**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001
	N	129	129	129	129	129	129
EmotionalAppealsMean	Pearson Correlation	.555**	.605**	.609**	.651**	1	.599**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001
	N	129	129	129	129	129	129
CorporateCredibilityMean	Pearson Correlation	.402**	.523**	.601**	.510**	.599**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	
	N	129	129	129	129	129	129

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

a. Country = Lithuania

Annexes 10

a. *Independent Samples t-Test Results – Nigeria vs. Lithuania*

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
EcoFriendlyMean	Equal variances assumed	6.161	.014	-3.267	346	.001	-.34930	.10692	-.55960	-.13900
	Equal variances not assumed			-3.398	301.364	<.001	-.34930	.10280	-.55160	-.14700
EcoLabelsMean	Equal variances assumed	14.600	<.001	-3.839	346	<.001	-.36831	.09594	-.55701	-.17960
	Equal variances not assumed			-4.106	322.737	<.001	-.36831	.08969	-.54476	-.19185
MessageFarmingMean	Equal variances assumed	21.802	<.001	-2.590	346	.010	-.27624	.10665	-.48599	-.06648
	Equal variances not assumed			-2.793	327.916	.006	-.27624	.09892	-.47083	-.08164
NatureImageryMean	Equal variances assumed	7.315	.007	-3.792	346	<.001	-.39273	.10355	-.59641	-.18905
	Equal variances not assumed			-3.960	304.513	<.001	-.39273	.09918	-.58789	-.19757
EmotionalAppealsMean	Equal variances assumed	12.413	<.001	-2.996	346	.003	-.29875	.09972	-.49488	-.10262
	Equal variances not assumed			-3.165	313.674	.002	-.29875	.09439	-.48447	-.11303
CorporateCredibilityMean	Equal variances assumed	22.194	<.001	-2.231	346	.026	-.24275	.10879	-.45672	-.02879
	Equal variances not assumed			-2.395	324.908	.017	-.24275	.10137	-.44218	-.04332

Independent Samples Effect Sizes

		Standardizer[a]	Point Estimate	95% Confidence Interval	
				Lower	Upper
EcoFriendlyMean	Cohen's d	.96338	-.363	-.582	-.143
	Hedges' correction	.96548	-.362	-.580	-.143
	Glass's delta	.87043	-.401	-.624	-.178
EcoLabelsMean	Cohen's d	.86446	-.426	-.646	-.206
	Hedges' correction	.86634	-.425	-.644	-.205
	Glass's delta	.72002	-.512	-.737	-.284
MessageFarmingMean	Cohen's d	.96088	-.287	-.506	-.069
	Hedges' correction	.96297	-.287	-.505	-.069
	Glass's delta	.78107	-.354	-.575	-.131
NatureImageryMean	Cohen's d	.93303	-.421	-.640	-.201
	Hedges' correction	.93506	-.420	-.639	-.200
	Glass's delta	.83397	-.471	-.695	-.245
EmotionalAppealsMean	Cohen's d	.89847	-.333	-.551	-.113
	Hedges' correction	.90042	-.332	-.550	-.113
	Glass's delta	.77674	-.385	-.606	-.161
CorporateCredibilityMean	Cohen's d	.98016	-.248	-.466	-.029
	Hedges' correction	.98230	-.247	-.465	-.029
	Glass's delta	.80838	-.300	-.520	-.079

a. The denominator used in estimating the effect sizes.
Cohen's d uses the pooled standard deviation.
Hedges' correction uses the pooled standard deviation, plus a correction factor.
Glass's delta uses the sample standard deviation of the control group.

Annexes 11

a. *ANOVA – Eco-Friendly Purchase Intention by Age (Combined Dataset: Nigeria + Lithuania)*

ANOVA

EcoFriendlyMean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.975	3	3.325	3.563	.014
Within Groups	321.054	344	.933		
Total	331.029	347			

Multiple Comparisons

Dependent Variable: EcoFriendlyMean

Tukey HSD

(I) Age Group	(J) Age Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
18-24	25-34	-.30961*	.11205	.031	-.5989	-.0203
	35-44	.00016	.22622	1.000	-.5838	.5842
	45-54	-.83317	.43723	.228	-1.9619	.2956
25-34	18-24	.30961*	.11205	.031	.0203	.5989
	35-44	.30977	.23390	.548	-.2941	.9136
	45-54	-.52356	.44125	.636	-1.6627	.6156
35-44	18-24	-.00016	.22622	1.000	-.5842	.5838
	25-34	-.30977	.23390	.548	-.9136	.2941
	45-54	-.83333	.48304	.312	-2.0804	.4137
45-54	18-24	.83317	.43723	.228	-.2956	1.9619
	25-34	.52356	.44125	.636	-.6156	1.6627
	35-44	.83333	.48304	.312	-.4137	2.0804

*. The mean difference is significant at the 0.05 level.

EcoFriendlyMean

Tukey HSD[a,b]

Age Group	N	Subset for alpha = 0.05
		1
35-44	20	3.2333
18-24	207	3.2335
25-34	116	3.5431
45-54	5	4.0667
Sig.		.084

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 15.183.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

b. *ANOVA – Eco-Friendly Purchase Intention by Education Level (Combined Dataset: Nigeria + Lithuania)*

ANOVA

EcoFriendlyMean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.474	3	.158	.164	.920
Within Groups	330.555	344	.961		
Total	331.029	347			

Multiple Comparisons

Dependent Variable: EcoFriendlyMean

Tukey HSD

(I) Highest Level of Education Completed:	(J) Highest Level of Education Completed:	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Secondary School or below	College/Associate Degree	.01852	.19331	1.000	-.4805	.5176
	Bachelor's Degree	-.06981	.13472	.955	-.4176	.2780
	Master's Degree or higher	-.00463	.20010	1.000	-.5212	.5119
College/Associate Degree	Secondary School or below	-.01852	.19331	1.000	-.5176	.4805
	Bachelor's Degree	-.08833	.16979	.954	-.5267	.3500
	Master's Degree or higher	-.02315	.22520	1.000	-.6045	.5582
Bachelor's Degree	Secondary School or below	.06981	.13472	.955	-.2780	.4176
	College/Associate Degree	.08833	.16979	.954	-.3500	.5267
	Master's Degree or higher	.06519	.17747	.983	-.3930	.5234
Master's Degree or higher	Secondary School or below	.00463	.20010	1.000	-.5119	.5212
	College/Associate Degree	.02315	.22520	1.000	-.5582	.6045
	Bachelor's Degree	-.06519	.17747	.983	-.5234	.3930

EcoFriendlyMean

Tukey HSD[a,b]

Highest Level of Education Completed:	N	Subset for alpha = 0.05
		1
College/Associate Degree	40	3.2917
Secondary School or below	72	3.3102
Master's Degree or higher	36	3.3148
Bachelor's Degree	200	3.3800
Sig.		.964

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 55.814.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.