

Malika Abisheva

Green Branding Research Paper

 Group End-Term Project: Brand Management (Fall 2025)

Document Details

Submission ID**trn:oid::2945:333372215****Submission Date****Dec 4, 2025, 11:42 PM GMT+5****Download Date****Dec 5, 2025, 11:44 AM GMT+5****File Name****Green Branding Research Paper.docx****File Size****81.8 KB****21 Pages****7,578 Words****45,345 Characters**

6% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Match Groups

- 
46 Not Cited or Quoted 6%
 Matches with neither in-text citation nor quotation marks
- 
4 Missing Quotations 1%
 Matches that are still very similar to source material
- 
0 Missing Citation 0%
 Matches that have quotation marks, but no in-text citation
- 
0 Cited and Quoted 0%
 Matches with in-text citation present, but no quotation marks

Top Sources

- 3%  Internet sources
- 3%  Publications
- 5%  Submitted works (Student Papers)

Match Groups

- 46 Not Cited or Quoted 6%**
Matches with neither in-text citation nor quotation marks
- 4 Missing Quotations 1%**
Matches that are still very similar to source material
- 0 Missing Citation 0%**
Matches that have quotation marks, but no in-text citation
- 0 Cited and Quoted 0%**
Matches with in-text citation present, but no quotation marks

Top Sources

- 3% Internet sources
- 3% Publications
- 5% Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

- 1** **Publication**
George Kofi Amoako, Robert Kwame Dzogbenuku, Aidatu Abubakari. "Do green k... <1%
- 2** **Internet**
pmc.ncbi.nlm.nih.gov <1%
- 3** **Student papers**
Taylor's Education Group on 2025-01-11 <1%
- 4** **Student papers**
University of Southampton on 2024-09-02 <1%
- 5** **Internet**
euraseans.com <1%
- 6** **Student papers**
Norbuling Rigter College on 2025-05-16 <1%
- 7** **Internet**
bmcpublihealth.biomedcentral.com <1%
- 8** **Publication**
Festim Tafolli, Elkjer Qema, Kujtim Hameli. "The impact of electronic word-of-mo... <1%
- 9** **Student papers**
University of South Africa on 2025-07-31 <1%
- 10** **Publication**
Jian Zhou, Lucinda Sawyer, Adnan Safi. "Institutional Pressure and Green Product... <1%

11	Internet	jssidoi.org	<1%
12	Internet	etd.aau.edu.et	<1%
13	Student papers	University of Southampton on 2024-09-11	<1%
14	Internet	www.researchsquare.com	<1%
15	Student papers	De LaSalle University - College of Saint Benilde on 2023-08-07	<1%
16	Internet	docs.google.com	<1%
17	Student papers	Dublin Business School on 2025-08-27	<1%
18	Internet	ojs.journalsdg.org	<1%
19	Student papers	Binus University International on 2016-01-13	<1%
20	Internet	accesson.kr	<1%
21	Publication	Allamah Al Hasanah, Edy Yulianto, Andriani Kusumawati. "Understanding the Im...	<1%
22	Student papers	Tilburg University on 2021-01-01	<1%
23	Student papers	Universiteit van Amsterdam on 2020-01-12	<1%
24	Student papers	University of Bradford on 2023-03-28	<1%

25	Internet	jisem-journal.com	<1%
26	Internet	www-emerald-com-443.webvpn.sxu.edu.cn	<1%
27	Publication	Sumedha Chauhan, Sandeep Goyal. "A meta-analysis of antecedents and consequen...	<1%
28	Student papers	Universiteit van Amsterdam on 2020-01-13	<1%
29	Student papers	University of Bristol on 2022-09-12	<1%
30	Student papers	University of Leeds on 2020-08-18	<1%
31	Internet	arcnjournals.org	<1%
32	Student papers	University of Leeds on 2017-08-18	<1%
33	Student papers	Taylor's Education Group on 2024-08-28	<1%

Abstract

Purpose – This study aims at studying how green branding and eco-innovations influence consumers in Kazakhstan. Sustainable branding is a policy where Kazakh companies are adopting environmentally friendly consumers. The proposed study will determine the most important factors affecting consumer attitudes and loyalty to the eco-friendly brands in the Kazakhstani market.

Design/Methodology/Approach – The study is based on a quantitative survey of consumers in Kazakhstan. We assess perceptions of green brand image, eco-innovations, trust in eco-claims, and the moderating influence of demographic factors using the theory of planned behavior and signaling theory. The testability of the survey results was confirmed using Cronbach's alpha and McDonald's omega tests, as well as structural modeling to test the hypothesized relationships.

Findings – The results demonstrate that the benefits of eco-innovations and a compelling green brand image significantly influence consumer attitudes and purchase intentions. When consumers feel exposed to green advertising, this undermines trust in green brands and reduces their purchase intentions. There are factors associated with higher levels of education and income enhancing the role of green brand perceptions.

Research limitations/implications – The cross-sectional design makes it impossible to draw causal conclusions. The future studies should apply longitudinal or experimental research design and incorporate rural or non-urban populations in Kazakhstan.

Originality/value – This study is relevant to emerging data on green branding in Central Asia, particularly due to its integration of company-level innovation data and consumer psychological reactions to the situation in Kazakhstan. The study's findings offer practical recommendations for marketers, managers, and policymakers in Kazakhstan.

Keywords: Green branding; Eco-innovation; Green purchase intention; Sustainability; Green trust; Kazakhstan.

1. Introduction

Environmental sustainability is no longer a secondary issue but a major concern in the business plans and consumer choices. This has been fueled by the advanced industrialization, the vigorous urbanization, and the undertaking of expensive projects, which have intensified the issues of environmental concern. Due to increasing consumer environmental sensitivity, organizations are becoming prolific in their application of greener branding and new green methods (Zhuparova et al., 2025). The goals of carbon neutrality by 2060 are described in the national policy documents of Kazakhstan. This has been in line with the global sustainable development goals. Eco-branding refers to the application of environmental attributes in the

brand identity and communications. In this manner, corporate social responsibility is shown where companies are concerned with the environment. Eco-branding can positively affect consumer perception, trust and purchasing behavior in collaboration with eco-innovations like recyclable packaging, resource efficient production, and other sustainable design features. The information asymmetries, skepticism and institutional constraints that limit the capabilities of consumers to transform brand perceptions to pertinent actions are prevalent in developing economies such as those of Kazakhstan.

Eco-branding and eco-innovation are gaining popularity among businesses in Kazakhstan, but there is little observational data available on its effect on local consumer behavior. Much of the literature on sustainable consumption originates from Western markets, so the models developed there may not be much applicable to Kazakhstan (Joshi & Rahman, 2019). Local research typically focuses on regulatory frameworks or environmental policies rather than consumer psychology (Davidenko et al., 2024a). Marketers and policymakers in Kazakhstan often face a challenge: they lack proven, market-based advice on creating effective advertising materials about sustainability and new products. As a result, their messages may fail to reach their target and attract local consumers. Furthermore, while the "attitude-behavior gap" is well documented globally, for example, when consumers express environmental concerns, however, do not always purchase "green" products, its dynamics in Kazakhstan have been understudied (Kurban, 2022). There are gaps in knowledge regarding how trust in "green" brands, the perceived benefits of eco-innovation, and demographic characteristics interact within this local context. Without this, companies risk investing in products that may offer many positive aspects nevertheless offer no benefit to consumers or may even be viewed with skepticism.

Kazakhstan is of concern in this study as it is a country that is both a fast emerging economy and a powerful resource industry and is also trying to move towards green activities and environmental change as promoted by the government. The country is committed to the incorporation of eco-innovation into its industrial strategy, as it is evidenced through national consultations that are facilitated by UNCTAD. Additionally, relatively new studies point to the fact that eco-branding gains more importance among the industrial enterprises of Kazakhstan. The pressure on the environmental performance of the products is identified to be rising, and the price sensitivity is a matter of concern (Louccanova et al., 2021). To businesses that are concerned with sustainable branding, as well as to policymaking bodies that are interested in fueling green consumption, it is worth knowing how consumers interpret and react to these environmental signals.

The following objectives were to be met: *Assess the perceptions and awareness of green brand and eco-innovative product among Kazakhstani consumers; *Assess how the benefits of eco-innovation and trust of a green brand affect the purchase intention and brand loyalty; *To examine the moderating role of green trust to these relationships; *To examine whether the demographic variables used as moderators of these relationships included income, education, and age. Considering all these goals, the research questions that were addressed in the study were the following: (1) What is the impact of eco-innovations and green branding on the attitudes, trust, and intentions of the Kazakhstani consumers? (2) What aspects of green branding do consumers perceive as the most authentic and trustworthy: environmental claims or third-party certification? (3) To what extent do visible eco-innovations have a stronger impact on the intention of consumers to purchase when compared with brand image alone? (4) Does skepticism affect the trust and consumerism towards the green claims? (5) Does green brand perception have any moderating or modifying effect on purchase intention depending on demographical factors? Through the response of questions, the study will seal a huge gap in the knowledge of the sustainable consumer behavior in Kazakhstan and provide feasible recommendations to both business and policy.

2. Literature Review

2.1 Green Branding and Eco-Innovations: A Comprehensive View

Green branding - a strategic way for a brand to communicate and position itself as environmentally friendly, often through sustainability claims, eco-labels, and eco-friendly product attributes. In developed markets, green brand equity includes brand image, consumer satisfaction and trust, and a strong link to purchase intent (Chen, 2010). Although this topic has been extensively studied, in emerging markets, such brand signals are typically scrutinized more closely due to lax regulation and low consumer awareness. Internal factors, such as environmental responsibility, personal values and how effective consumers perceive a product to be, strongly influence their intention to make sustainable purchases (Mukhanova et al., 2021). The eco-innovative attributes, such as the level of innovativeness, eco-friendliness, and product shareability, are designed in a certain way, which is especially critical and directly affects consumer acceptance (Paparoidamis et al., 2019). It is all that proves that not every eco-innovation is viewed in the same way: the way they are designed and presented does matter.

Eco-innovations are the creation of new products, processes, or designs with minimal negative environmental impact, which often forms the basis of eco-branding. However, innovation alone

is not enough: consumers need compelling signals to believe in their environmental value. Signaling theory explains how companies use branding, certification, and transparency to narrow the gap between stated and actual environmental performance. Research on small and medium-sized businesses shows that eco-innovations help achieve sustainable development goals, however this effect is manifested through “green” branding, which links the innovations themselves with their results (Rehman et al., 2024). In other words, eco-innovation is such item that should be effectively presented to inspire consumer trust and ensure social benefits. The Motivation-Opportunity-Ability (MOA) model is suitable in the context of researching consumer green behavior (Yener et al., 2023). It demonstrates that pro-environment behavior is manifested when consumers possess information, money, availability of environmentally friendly goods and most to the point the desire to take care of the environment. The implementation of the MOA model in Kazakhstan demonstrates that positive attitudes to environmentally friendly products matter, but the absence of intentions is frequently prevented by expensive prices and a lack of these products available, which is a major gap in attitudes and behaviors (Khamzina et al., 2022).

Another line of research is the theory of planned behavior (TPB), which is developed by incorporating perceived values and knowledge about the environment. Emotional and functional values, for example, how consumers perceive eco-friendly products and how beneficial they are, along with environmental knowledge, strongly predict attitude toward the product, which influences purchase intention (Nassanbekova et al., 2024). Interestingly, social value sometimes has a negative impact: social pressure can even reduce intention to purchase eco-friendly products. Although most green marketing research has been conducted in developed markets, new domestic studies reveal a different context. The economic aspects of eco-branding in Kazakhstan's manufacturing sector demonstrate that it helps align producers and consumers, however price sensitivity remains a significant barrier (Davidenko et al., 2024b). UNCTAD's reports on Kazakhstan's green transformation demonstrate how national strategies and institutions are striving to integrate sustainable development principles into industry. The Second national consultation on integrated strategies emphasizes the government's commitment to green structural transformation, creating the conditions for corporate green branding and its adoption by consumers, however raising questions about how consumers understand and perceive these institutional signals.

Trust plays a key role in the behavior of green consumers. Loyalty and purchase intentions are established when they believe claims on environment. But when greenwashing is seen to be

overdone or false, trust is lost, and consumer behavior can be adverse, particularly in low-regulation, low-awareness markets of eco-labels. Even though there is limited research on the topic of greenwashing in Kazakhstan, the studies concerning innovative branding imply that it can get into trouble: in case information is not correct, the advantages of eco-innovations might not reach the consumer or create any social value (Rehman et al., 2025). According to the behavior of environmentally conscious consumers suggests that perceived risk, that is including the risk of inaccurate environmental claims, significantly hinders the adoption of eco-friendly products (Sheikh et al., 2023). Using different theories helps us understand how eco-branding and eco-innovation influence consumer behavior. The model may include: *The theory of planned behavior (TPB) to see how attitudes, norms and control influence intentions to purchase green products; *The MOA model to understand how motivation, abilities, and opportunities help translate intentions into action; *Signaling theory to show how branding and information verification create trust. By combining these approaches, we can hypothesize not only direct effects, moreover indirect and moderator relationships.

2.2 Theoretical Framework

The theoretical framework of this study integrates two complementary perspectives: The motivation-opportunity-ability (MOA) approach and signaling theory. This is important to explain how green branding and eco-innovations influence consumer behavior in Kazakhstan. The desire to purchase a green product depends on three factors: firstly, if person likes the green product, then if others support such purchases, and finally, if they feel that they can easily purchase the product (Joshi & Rahman, 2019). It will be important to supplement everything with the MOA model: the consumer must be motivated by values and concern for the environment, have financial resources and knowledge, and have the ability to purchase eco-friendly products for intention to be transformed into actual action (Majeed et al., 2022). Motivation is also classified as the internal forces that ensure consumers desire to act sustainably. This includes the environmental values, the environmental awareness on the environmental issues, personal responsibility and positive attitudes towards the green products. Highly motivated consumers believe in the meaning of the concept of eco-friendly products and link it to their identity which leads to the increase in intention to pay a second thought to it. Opportunity is a sign of the external environment that enables sustainable purchasing. This involves accessibility of the green products in the stores, accessibility to information, convenience, affordability and supportive social norms. Consumers with high motivation and knowledge cannot be on the sustainable side when the number of products that are

environmentally friendly is limited or they are expensive. Ability entails financial resources, skills, and knowledge that are possessed by consumers enabling them to perform the behavior. Consumers must know eco-labels, be aware of environmental claims and have a sufficient financial ability to use environmentally friendly options. Ability is the difference between a desire to purchase and ability to purchase. As highlighted in Figure 1, the MOA model posits that to achieve pro-environmental behavior; all the three aspects must conform. Intention will not be turned into action until consumers are able and opportunity to do so, which is achieved when they are motivated. When income, availability, or the lack of understanding is weak, as one of the elements, the emergence of green purchasing behavior is not possible even with positive attitudes.

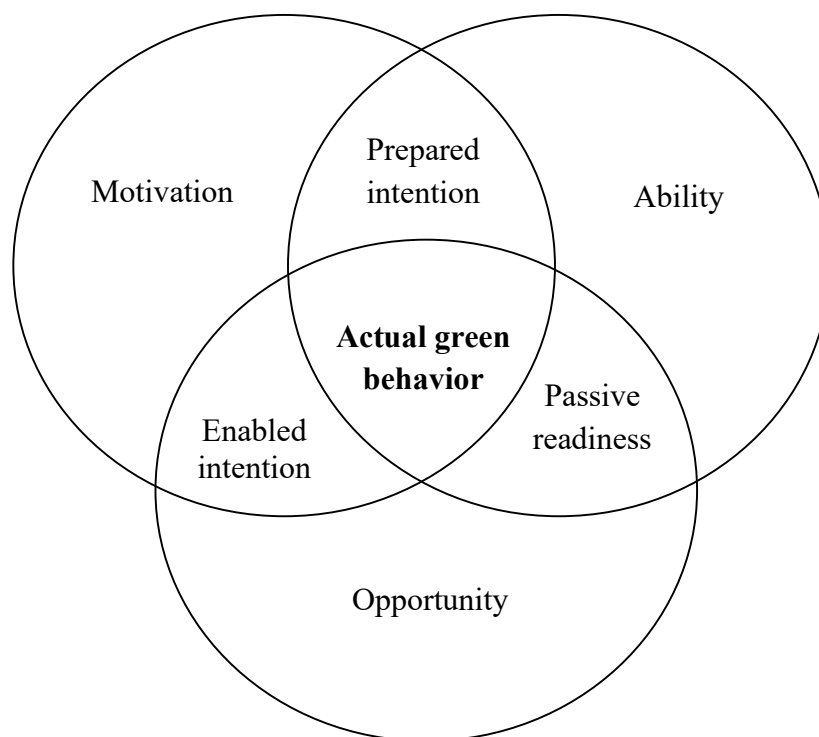


Figure 1. Motivation-Opportunity-Ability (MOA) model

The second dimension is signaling theory, where the brand acts as a source of information, focusing on company communications and the brand's role. The eco-innovations (new materials, energy-saving solution, recycled packaging) offer a brand solid foundation in terms of the green positioning. Nevertheless, this is not sufficient to the consumers as they require trust and assurance. Certifications, well-known eco-brands, and transparent reporting reduce uncertainty and demonstrate that the company is truly acting environmentally friendly, not just declaring it (Tan et al., 2022). Based on this, our integrated conceptual framework suggests a sequence: eco-innovations and green branding elements shape perceptions of quality and value,

signals and certifications build or undermine green trust, and the MOA model determines whether purchase intention is realized. In this framework, trust mediates between objective product characteristics and behavioral intentions, while perceptions of greenwashing act as an active negative factor capable of disrupting the transmission mechanism. Background moderators in this case include government green transformation efforts, market structure, and consumer awareness in Kazakhstan, which moderate a relationship between a relationship strength or weakness.

2.3 Rationale for the Study and Research Gaps

Although prior studies have already determined the connection between the concept of green branding, eco-innovation, and consumer behavior in the Western environment, the same cannot be done in the context of the Kazakhstani environment. Few studies in Kazakhstan have examined how green brand messages together with real eco-innovative product features influence consumer trust and purchase intention. When desire does not turn into actual buying, the gap between attitude and behavior appears. This gap is poorly studied among consumers in Kazakhstan, moreover this includes how demographics might affect it. The effects of perceived greenwashing and the credibility of information such as third-party certification are also not clearly understood in the local market. Kazakhstan has committed to green growth at the national level (Zhuparova et al., 2025), however it is still unclear how these policies translate into real consumer behavior through branding. Studying of these gaps can give useful theoretical insights and practical guidance for companies and policymakers in Kazakhstan. Most of the available literature targets consumers who are already environmentally conscious and neglects the huge numbers of neutral or low-involvement consumers and who do not seek green products actively. There is little information regarding how eco-innovative benefits, green brand image, and trust-building mechanisms affect these less engaged consumers. This disconnect restricts the extrapolation of available findings and undermines the capacity of marketers to develop strategies that will reach the mainstream consumer in Kazakhstan.

2.4 Hypotheses Selection

Hypothesis 1: The influence of eco-innovation benefits on consumer attitudes

Justification: Eco-innovations, particularly recyclable packaging, energy-efficient technologies and reducing emissions throughout the life cycle of goods, give consumers a clear and real reason to choose ecological products. These are no longer general promises, however real advantages, such as energy savings, less waste and more responsible consumption. Studies

confirm that buyers really appreciate such practical benefits. For example, the MDPI study showed that the more innovative a product seems and the more noticeable its ecological advantages, the higher the desire to buy it (Aibar-Guzmán & Somohano-Rodríguez, 2021). Another study on branding and sustainability also shows that eco-innovations can strengthen the brand if people understand their benefits (Loučanová et al., 2021). In Kazakhstan, the results of studies also indicate that functional benefits, such as saving money or ease of use, are especially important for consumers. Hence, in case the product exhibits actual ecological benefits, it enhances the attitude of consumers and raises their purchase intention (Li et al., 2020).

H0: *The perceived benefits of eco-innovations have no significant influence on consumer attitudes.*

H1: *The perceived benefits of eco-innovations positively influence consumer attitudes.*

Hypothesis 2: The effect of green brand image on green trust

Justification: Signal logic suggests that the brand plays the role of an important source of information. A company demonstrating its environmental values in stages and substantiating them with actual measures, such as eco-certification, transparent reporting or verifiable procedures shows the consumer a decrease in the risk factor and starts to believe in the brand more (Tan et al., 2022). Research proves that the green image has a direct impact on trust: honesty and openness of the brand eliminate uncertainty in information, creating a more positive approach to trust among the consumers. The continuity and veracity of the brand signal, in particular, is particularly significant in Kazakhstan as the level of awareness of eco-labels and sustainable standards is also in its infancy (Abazov, 2025). Thus, there is a positive and genuine image of green that can greatly raise the degree of green trust among the consumers.

H0: *Green brand image has no significant effect on green trust.*

H1: *Green brand image (authentic green positioning) positively affects green trust.*

Hypothesis 3: The Impact of Greenwashing on Trust and Purchase Intention

Justification: Greenwashing is a common issue today, since companies exaggerate their environmental efforts or make vague sustainability claims, consumers trust decreasing and company may react negatively. Consumers who suspect companies of greenwashing begin to perceive environmentally friendly products as riskier and are less willing to pay for them. It is

especially potent in the areas where there is a lack of regulation and where less educated populations do not have awareness of a particular danger, for example, in the parts of Central Asia, where even more damage is done by the false claims. Therefore, any doubts related to the environmental friendliness of products suggest the lack of trust in these products and lower purchase intentions. The evidence provided by local research is that there should be stricter certification procedures and transparency to enhance the consumer trust (Gorton et al., 2021).

H0: *Perceived greenwashing has no significant influence on green trust and purchase intention.*

H1: *Perceived greenwashing negatively influences green trust and purchase intention.*

Hypothesis 4: The Moderating Role of Demographic Factors

Justification: MOA theory and research imply two important factors, which affect the extent to which individuals can convert their intentions to environmental behavior into reality, and they are the financial resources and knowledge. Those earning more will have better chances of having more money to purchase costlier products which are environmentally friendly. Meanwhile, individuals who possess a higher degree of education tend to be more knowledgeable about the advantages of environmentally friendly items and open to environmental messages. This correlation is supported in the studies conducted in Kazakhstan: the investigation of green consumption among Almaty residents revealed that education and income are strong predictors of a favorable attitude and intention to buy green products (Mukhanova et al., 2021). It is more probable that people with the highest education and financial stability will purchase environmentally friendly products. Therefore, demographic variables enhance the effects of brand image and product innovativeness on purchase intentions and trust.

H0: *Demographic factors do not moderate the relationship between eco-innovation benefits, brand image, trust, and purchase intention.*

H1: *Demographic factors moderate the effect of eco-innovation benefits and brand image on trust and purchase intention.*

Hypothesis 5: The Attitude-Behavior Gap (MOA Framework)

Justification: The MOA model clearly states that intention is a necessary, however not sufficient condition for behavior: economic ability and product availability are also required. Numerous studies on sustainable consumption show that these "barriers" often explain the

attitude-behavior gap: high intentions are not realized if there is a lack of product availability, if the price is prohibitive, or if convenient retail locations are unavailable. Local studies in Kazakhstan also identify issues of availability and price as clear barriers to the widespread adoption of green products, even with high levels of environmental awareness (Khamzina et al., 2022). Consequently, the role of "ability" and "opportunity" as moderators/conditions for intention realization is supported by theory and empirical evidence.

H0: *Behavioral intention is translated into actual behavior independently of the consumer's ability and opportunity.*

H1: *Behavioral intention, formed through attitudes and trust, is translated into actual behavior in the presence of ability and opportunity.*

3. Research Methodology

3.1 Type and Nature of the Research Study, and Ethical Considerations

This paper will utilize a quantitative and explanatory research design that seeks to test the extent to which consumers in Kazakhstan consider eco-innovations, green brand image, and perceived greenwashing and how the consideration influences trust, attitudes, and their behavioral intentions. The research strategy has a deductive logic because the study is based on the existing theoretical models of green marketing and sustainability communication, and subsequently, it examines the appropriateness of the models in the context of Kazakhstan. The research design is cross-sectional since the data were taken at one point in time and therefore, it is possible to evaluate the existing consumer perceptions without an endeavor to determine how the perception changes over an extended period of time. This design is suitable in testing hypotheses that are based on causal relationships such as the hypothesis of whether perceived eco-innovation benefits have an impact on attitudes (H1), whether the authentic brand image reinforces green trust (H2), whether greenwashing undermines green trust and purchase intention (H3), whether demographic characteristics mediate the effects (H4), and whether behavioral intention correlates with actual environmentally responsible behavior when the situation is right (H5). Ethics were considered in the course of conducting the research. The purpose of the study, voluntary nature of the participation and the right to withdraw at any time was informed to the participants. The questionnaire was conducted using Google Forms, allowing to collect and store the data anonymously. There were no personal identifiers collected like name, phone number or IP address. The ethics of typical research, such as confidentiality, transparency, and non-harm, were observed. Since the research was not based on a sensitive

personal information and represented a low-risk situation to the study participants, there was not a necessity to obtain formal institutional ethical approval, however, the set of ethical principles was considered to be the prevailing in the design and data-collection process.

3.2 Population, Sample and Data collection

This study is going to target consumers in Kazakhstan, aged 18-35 because this group is more active online, more exposed to sustainability-related information, and thus, more prone to respond to the eco-labeling, environmental communication, and green claims. The non-probability convenience sampling technique using purposive criterion was utilized so that only individuals aged 18 and above and living in Kazakhstan took part. The last sample will consist of 200 filled questionnaires which are more than the minimum sample size in medium-effect regression and reliability testing. Such a size of a sample enhances the stability of the correlations and increases the ability of the analysis to identify any meaningful effects, especially when one examines multi-construct models comprising of trust, attitudes, and perceived greenwashing. The information was gathered in many ways in order to target a wide and varied population of the respondents. The survey link was shared through the social media, university communication channels, student organizations and thematic interest groups. Also, the QR codes that would direct the questionnaire were distributed in person in academic institutions, and this facilitated respondents to fill the survey using their phones. The multi-channel data collection plan made the data more accessible and minimized bias that would occur when one outreach strategy would be used. The answers were automatically stored in Google Forms and then the information was transferred to Excel to prepare, clean and code it and ultimately analyze the statistics using JASP. This pipeline guaranteed the precision in the procedure of data transfer and helped to handle the dataset effectively.

3.3 Measurement Scales and Instrument Design, and Analysis Framework

The main research tool was a structured questionnaire that was created in Google Forms. It had clear instructions and section division as well as confirmation of the responses to make it usable and clear. The questionnaire contained demographic questions and a number of multi-items that included the green brand image, green trust, perceived greenwashing, perceived benefits of eco-innovation, certification exposure and communication clarity, purchase intention and self-reports. The majority of items were based on a 5-point Likert scale, with the options of strongly disagree, strongly agree, and so forth, as it gave the respondents an opportunity to indicate the level of their agreement. A number of open questions were added to enable the

participants to expound on their opinions, which will give the contextual information that would help to interpret quantitative results. The instrument structure was based on already tested scales in studies in sustainability and consumer behavior, with the exception that items were localized to the Kazakhstani context and they were modified to be more comprehensible to local respondents. The statistical methods to be used in the analysis plan include a number of methods that have been chosen to assess reliability, investigate the relationship between the variables, and test the hypotheses that were put forward. Cronbach's alpha, McDonald's omega, and Composite Reliability were used to evaluate internal consistency of each of the multi-item constructs and these three measures offer a solid assessment of measurement reliability. The descriptive statistics were created in order to describe demographic distributions and central tendencies of major constructs. Correlation analysis helped determine the relationship between attitudes, trust, eco-innovation perceptions, and behavioral intentions. The predictive relationships were tested by applying multiple regression analysis to determine whether there are demographic factors affecting the strength of the relationships. Methodological rigor and consistency were achieved by performing all statistical procedures with JASP with the level of significance of $p < 0.05$.

3.4 Power Calculation

The target sample size of respondents was based on a standard sample size formula:

$$n = \frac{N \cdot Z^2 \cdot p(1-p)}{e^2(N-1) + Z^2 \cdot p(1-p)}$$

Where:

$N = 20\,500\,000$ people (population size)

$Z = 1.96$ (confidence level)

$p = 0.5$ (maximum variability)

$e = 0.07$ (margin of error)

The population of Kazakhstan was 20,464,077 people as of 1 November 2025 (Bureau of National Statistics of the Republic of Kazakhstan, 2025). To estimate the population proportions with a reasonable degree of certainty, a priori sample size calculation was done

before the survey was conducted to measure the minimum sample required to be used. Assuming a 95 percent confidence level ($Z = 1.96$), a maximum variability of $p = 0.5$, and a margin of error of 0.07 (to balance the precision and feasibility), it was calculated that at least 196 respondents would be required. The 200 respondents sample actually used is a bit larger than this minimum which is sufficient to provide sufficient accuracy of the analysis. The sample size will enable a good estimation of the relationship between trust, perceived greenwashing, eco-innovation perceptions, and purchase intentions and at the same time has enough statistical accuracy and confidence in the findings.

4. Results and Discussion

The primary findings of the research are provided in this section, such as the demographic features of the respondents, the results of reliability of the measurement scales, and the most significant relationships that were tested in the model. The analysis is aimed at identifying the perceived eco-innovation benefits, green brand image, trust, and greenwashing to the Kazakhstani consumers and their impact on their attitudes and intention to purchase the green brands. The findings are also explained against the current literature to establish the role of green branding in consumer behavior.

4.1 Demographic Profile

Table 1 below shows the demographics of the study respondents, including age, gender, education level and city of residence.

Table 1. Demographic Profile of Respondents (N = 200)

Demographic Variable	Category	Frequency (n)	Percentage (%)
1. Age (years)	18-24	96	48%
	25-34	57	28.5%
	35-44	25	12.5%
	45 and above	22	11%
	Total	200	100.0
2. Gender	Male	97	51.5%
	Female	103	48.5%
	Total	200	100.0

3. Level of Education	High school	26	13%
	Bachelor's degree	117	58.5%
	Master's degree	50	25%
	Doctorate (PhD)	7	3.5%
	Total	200	100.0
4. City of Residence	Almaty	69	34.5%
	Astana	58	29%
	Others	73	36.5%
	Total	200	100.0

Source: Author's Research Survey

The demographic representation of the respondents (N = 200) shows that the sample is mainly composed of youthful individuals, with almost half of them being between the age of 18-24 and the other significant proportion being between 25-34 years. The gender balance is quite even. The respondents are generally well educated with more than half having a bachelor's degree and quarter having a master's program. Regarding residence, the sample is heterogeneous, however has significant proportions of major cities, and Almaty and Astana, in particular, are well-represented by other regions in the country.

4.2 Reliability and Validity of the Questionnaire

The measurement instrument reliability test indicates that the scales adopted in the questionnaire have a great internal consistency and can be easily utilized in the future statistical analysis. Also, Table 2 indicates that Cronbach alpha of all multi-item constructs is 0.92 that is above the generally accepted level of 0.70. This means that there is a high correlation between the items in each of the scales and they all measure the same concept. Omega, which is perceived as a stronger measure of multidimensional constructs, portrays the same high level of 0.91. Besides these measures, the Composite Reliability coefficient stands at 0.93, which is another value that proves the internal consistency of the measurement model. Composite Reliability is also extensively applied in the field of structural equation modeling and is regarded as one of the favorite metrics of reliability in modern measurement studies, especially when constructs are measured by multiple reflective indicators (Chambers, 2019). A value above 0.70 is generally considered as good whereas above 0.90 depicts great internal consistency, which is also consistent with the findings made in this study. Combined, the Cronbach alpha, McDonalds omega and Composite Reliability values as revealed in Table 2

indicate that the questionnaire to be applied in this study is statistically sound and capable of assessing consumer perceptions regarding green branding. The findings are also included in the construct validity of the model as it is assumed that reliable scales are also a requirement of conducting valid tests of hypothesis and valid interpretation of the consumer attitudes, trust development, and behavioral intentions. The research is based on already proven scales of conducting research on green marketing and sustainability, and the indicators of reliability are also much higher than those recommended, which is why the questionnaire may be deemed as methodologically sound and theoretically relevant.

Table 2. Reliability and Validity Statistics

Dataset Variables	Cronbach's Alpha test	McDonald's Omega test	Composite Reliability test
23	0.92	0.91	0.93

Source: Data Analysis (2025)

4.3. Testing of Hypotheses and Discussion

Correlation analysis and multiple regression analysis have been employed in the study to test the postulated hypotheses. The correlations analysis has been used to determine the intensity and direction of the relations between eco-innovation benefits, green brand image, trust, greenwashing perception and consumer behavioral reaction. The predictive effect of each construct on consumer attitudes, trust and purchase intention has been determined by regression analysis. Recent research has established that correlation and regression are the most popular statistical tests in the study of the green marketing and sustainability due to the ability of scholars to test causal paths, determine mediation or moderation, and support consumer behavior models (Majeed et al., 2022; Pimonenko et al., 2020). Equally, these same methods have been used to assess predictors of green behavior and purchase intentions to research the young consumers in Kazakhstan, which has also helped in supporting their methodological relevance in the current study.

Table 3 below shows the results of the hypothesis testing. The interpretation is based on the statistical significance ($p < 0.05$), the value of the standardized coefficient (β) and the sign of the relationship. In all the hypotheses, the p-value is found to be statistically significant implying that the study has rejected (H_0) and accepted (H_1) hypotheses.

Table 3. Hypothesis Testing Results

No	Hypothesis	Result	Interpretation
----	------------	--------	----------------

1	H0: Perceived benefits of eco-innovations have no significant influence on consumer attitudes. H1: Perceived benefits of eco-innovations positively influence consumer attitudes.	$\beta = 0.48$, $p < 0.001$, $r = 0.19$	The p-value has been statistically significant (<0.05), therefore H1 has been accepted. The correlation coefficient ($r = 0.19$) has shown a weak but positive relationship, meaning that as perceived eco-innovation benefits increased, consumer attitudes have improved, although the relationship was not very strong.
2	H0: Green brand image has no significant effect on green trust. H1: Green brand image (authentic green positioning) positively affects green trust.	$\beta = 0.68$, $p < 0.001$, $r = 0.63$	The p-value has been statistically significant, therefore H1 has been accepted. The correlation coefficient ($r = 0.63$) has indicated a strong positive relationship, showing that higher perceptions of green brand image have been closely associated with higher levels of green trust.
3	H0: Perceived greenwashing has no significant influence on green trust and purchase intention. H1: Perceived greenwashing negatively influences green trust and purchase intention.	$\beta = 0.35$, $p < 0.001$, $r = 0.34$	The relationship has been statistically significant, thus H1 has been accepted. The correlation coefficient ($r = 0.34$) has shown a moderate negative tendency, meaning that higher perceptions of greenwashing have been associated with weaker trust and lower purchase motivation.
4	H0: Demographic factors do not moderate the relationship between eco-innovation benefits, brand image, trust, and purchase intention. H1: Demographic factors moderate the effect of eco-innovation benefits and brand image on trust and purchase intention.	$\beta = 0.46$, $p < 0.001$, $r = 0.30$	The p-value has been significant, therefore H1 has been accepted. The correlation coefficient ($r = 0.30$) has indicated a moderate positive association, demonstrating that demographic characteristics have been meaningfully connected to the strength of green consumption outcomes.
5	H0: Behavioral intention is translated into actual behavior independently of the consumer's ability and opportunity. H1: Behavioral intention, formed through attitudes and trust, is translated into actual behavior in the presence of ability and opportunity.	$\beta = 0.6$, $p < 0.001$, $r = 0.63$	Since the p-value has been statistically significant, H1 has been accepted. The correlation coefficient ($r = 0.63$) has demonstrated a strong positive relationship, suggesting that when intention is supported by resources and situational

			conditions, actual green behavior becomes much more likely.
--	--	--	---

Source: Research Findings

4.4 Discussion and Presentation of Results

The outcomes of the present research have given considerable proof that consumer trust, attitude and purchase intention have been influenced by eco-innovation benefits, brand image, and perceived greenwashing. Firstly, as has been demonstrated in the analysis, the eco-innovation benefits have positively influenced the consumer attitude, proving that functional benefits like energy efficiency, recyclability and waste reduction have reinforced the perception of value. This relationship has been well established in green marketing literature, as practicable and observable environmental returns have been continuously increasing consumer judgment of sustainable products (Yildiz, 2023). These conclusions have been justified by the current findings, and they have revealed that the Kazakhstani consumers are responsive to products that tell them of the real ecological improvements. Second, the research has discovered that a green brand image has strongly opined green trust. The findings have shown that the perceived risk has been lessened by transparent and consistent environmental communication that ensured credibility. The same trends have been documented in previous research, with investigators finding out that genuine green positioning raises the percentage of trust that consumers have in the sustainable brands (Berdanova, 2018). These insights have been further extended in the current study as they have shown that the relationship is also true in Kazakhstan where consumer awareness of eco-labels and environmental standards remains immature.

Third, the findings have shown that perceived greenwashing has adversely affected the trust, as well as purchase intention. Greenwashing has brought confusion, heightened distrust and reduced brand credibility and this has deterred consumers to interact with green products. These findings have been aligned with previous studies in which showed that misleading environmental claims have lowered purchase motivation and harmed consumer relationships with the brand (Khachatryan et al., 2023). The current research has established that this effect is especially high in the emergent markets where the environmental regulation and awareness of the consumers are still developing. Fourth, demographic factors have been a major moderating factor. The research has revealed that education and income has reinforced the beneficial impacts of eco-innovation benefits and green brand image on trust and purchase

intention. This has been also similar to recent studies in Kazakhstan in which they highlighted that, consumers who are more educated and earn a steady income can better translate their environmental preferences into real buying choices (Halyk Foundation Bulletin, 2023). Thus, the demographic factor should be taken into consideration when developing green branding strategies.

Lastly, the research has validated the hypotheses of the MOA model by demonstrating that behavioral intention has not necessarily been translated into behavior. The findings have revealed that ability and opportunity particularly price and availability have been pre-conditioned factors to carry out sustainable actions. This finding has been consistent with previous researchers that indicate that the intention behavior gap is one of the biggest hindrances to sustainable consumption (Wintschnig & Bea, 2021). The unavailability of cheap and available products which are eco-friendly has limited the behavioral consequences even to **consumers who have a high level of environmental** attitude in Kazakhstan. Combined, the results have shown that the green branding strategies should focus on genuine innovation, clear communication and value provision to consumers. The findings have also revealed that the regulators and companies should minimize greenwashing activities, enhance the credibility of eco labels and make sustainable products accessible and affordable to a larger proportion of consumers.

5. Managerial Implications

The findings of this research are of great importance to the businesses in Kazakhstan, especially those that deal with consumer-based businesses like FMCG, fashion, beauty and technology based on households. Since the eco-innovation benefits and green brand image have proven to be the strong power, which can affect the consumer trust and purchase intention, companies can employ these findings to optimize their sustainability policies and positioning on the market. Eco-innovation increases the competitive strength and brand value, which means that the companies must focus on actual environmental changes more than on the symbolic ventures. Recyclable packaging, waste minimization or energy efficiency production investment is likely to generate more consumer response than generic green statements. The findings can be utilized by the marketing and branding teams to create clearer communication strategies. In Kazakhstan consumers are paying positive responses to the environmental claims that are transparent, verifiable, and attributed to the tangible product characteristics. Clarity of messages and tangible eco-benefits lead to trust, whereas hazy or exaggerated statements

increase doubt. As perceived greenwashing declines the trust and intention to a great extent, marketers are not encouraged to be too broad with their sustainability statements but emphasize concrete results that could be proved or confirmed by certification or reliable documents. It is also critical to individualize sustainability messages to various segments of the population: consumers with high education and income are most likely to consider environmental details more closely, whereas less educated and accessible information is needed by other people. It has an implication on internal stakeholders, including the employees. The employees are also important in supporting brand credibility as they deal directly with the customers and express the environmental values of the company. One important aspect of successful sustainable brand management has been found to be internal alignment. Hence, companies must make the employees trained in sustainability practices, know about the eco-innovations of the company, and be able to communicate with certainty.

The results of this study could be used to enhance regulation frameworks by policymakers. As greenwashing is a threat to consumer trust, governments might adopt tougher regulations of environmental advertisement, uniform eco-labels, and educational campaigns to the population. Lax regulation facilitates the possibility of making false environmental assertions and therefore, more specific national regulations would be helpful to both the consumer and the business. The ability and opportunity components of consumer behavior can also be reinforced by policies favoring the availability and affordability of goods, i.e., eco-friendly goods subsidies or incentives. The stakeholders in the supply chain such as suppliers, distributors and financial institutions can assist the firms by adopting transparent sourcing methods and financial tools, which are necessary in promoting sustainable investment. Harmonized supply-chain plans can stir up consumption of eco-friendly goods supporting the idea that sustainability must be systemic. Lastly, the research offers great guidelines to upcoming researchers as it gives a comprehensive MOA and signaling theory framework that can be adopted in the case of emerging markets. It adds empirical evidence of Kazakhstan, which is missing in the body of literature on sustainability in the region and creates future avenues in the field of experimental design, sector studies, and research that incorporates rural or low-income populations.

5.1 Scientific Significance & Knowledge Contribution

Eco-innovation, eco-branding, and sustainable product strategies have become some of the most important competitive advantages in the market, especially in the developing countries as environmental issues start to dominate the consumer expectations. According to the authors,

eco-innovation reinforces the image of eco-brands of companies by integrating the value to the environment in the development of products and communication. Their holistic model proves that the combination of technological innovation and open sustainability messages by companies makes them feel that brands are more reliable and trustworthy by consumers and their market performance is enhanced. Based on this perspective, eco-innovation of packaging involves special attention to the food and beverage industry, where packaging waste is a major environmental concern. This multi-case study shows that when companies introduce waste-preventive packages, for example biodegradable materials, lightweight, recyclable or lightweight designs, they reinforce their eco-brand image by proving their sincere interest in sustainability. Notably, the packaging innovations must not only be functional but to communicate to people in a visible way that the company is concerned about the environment. Equally, green technology innovations and eco design play a great role in the success of new green products, particularly where the company has a strong green corporate image. Results emphasize that corporate reputation moderates the effects: in the cases when companies encourage environmentally responsible behavior regularly, consumers will be more willing to buy and use new green products. This proves that eco-design is never sufficient but should form part of a wider attitude of an organization to sustainability. Simultaneously, strategic green marketing additionally reinforces the image of green corporate with the help of the effective brand positioning and innovative approaches. Authors claim that organizations should positionally inform the manner in which their products lessen their impact on the environment because this does not only position the brand differently, however, also generates confidence in the consumer. Overall, the literature has shown that there is a distinct trend: the integration of eco-innovation, strategic green marketing, and building a valid corporate image produces a strong synergistic effect that reinforces brand equity and promotes sustainable consumption. This combined strategy can help companies in the emerging economies to improve on the competitiveness in the long term as well as respond to urgent environmental issues.

6. Conclusion, Limitations, and Scope for Future Research

This study suggests that reputable green brand and actual eco-savings largely influence the consumer attitude, confidence, and buying behavior in Kazakhstan. Concrete environmental advantages like recyclable packaging and energy-efficient manufacturing enhance trust whereas the imprecise or overstated claims about greenness diminish it. The theoretical contribution of the research is that the Motivation-Ability-Opportunity (MOA) framework is used to describe the attitude-behavior gap: despite being motivated, consumers require

affordability and access to be able to act in a sustainable way. The signaling theory also demonstrates that supported claims decrease uncertainty, whereas unsupported claims are damaging to credibility. This is because these two views combined can be used to better comprehend green consumer behavior within a new market. In practice, the results indicate that business organizations need to concentrate on actual eco-innovation and open communication instead of superficial marketing. High-income and well-educated consumer groups require targeted approaches whereas simpler communication can be used to increase coverage. This change can be facilitated by regulators through better eco-labeling, transparency, and eco-labeling prevention standards.

However, valuable insights are limited by some shortcomings. The cross-sectional survey is restrictive of causal inferences and the sample, which was probably younger, urban and educated, **may not represent the entire** population. Attitude based **on self-reporting** **may be** biased rather than actual buying behavior. Theoretical emphasis on MOA and signaling does not cover other effects, such as social norms and values, and thus findings can be used cautiously. The future research must use longitudinal or experimental methods to establish causality and monitor variations in the future. Generalizability should be enhanced with wider samples such as rural, older or regional populations. Real market data testing certain industries (e.g., food or fashion) and including such constructs as cultural values or social norms would be more insightful. With the change in sustainability expectations, research must be continuous as a way of retaining consumers to determine the effective green branding practices in emerging economies.