Chapter 16

Factors Influencing Libyan Females Purchasing Intentions of Organic Cosmetic Products in Libya

Fatima Alwash[1]

Abstract

This study investigated the factors influencing Libyan females' purchasing intentions towards organic skin care products. It focuses on product knowledge, past experience, health consciousness, and environmental consciousness, with attitude as a mediating variable. Utilizing a quantitative research approach, data was collected from 400 respondents in Misurata, Libya, through structured surveys. The findings revealed that product knowledge positively impacts purchasing intentions, while past experience and health consciousness have stronger effects. Environmental consciousness also significantly influences purchasing behavior, which reflects growing consumer awareness of sustainability. Attitude plays a crucial mediating role, enhancing the impact of knowledge and values on purchasing intentions. These insights provide valuable implications for marketers aiming to penetrate the organic skincare market in Libya, highlighting the importance of educational campaigns, positive consumer experiences, and ethical branding strategies. The study contributes to the literature on consumer behavior and sustainable consumption, offering a foundation for future research in emerging markets.

1. Introduction

1.1. Background and study objectives

A growing involvement and attention toward health as well as environmental problems have resulted in the global transition towards organic products mainly in beauty and skincare (Su et al., 2022). Natural and chemical-free, organic cosmetics are considered healthier and more sustainable choices, appealing to consumers looking for a better alternative.

1 Altinbas University, Email: fatimaalwash2@gmail.com

https://doi.org/10.58830/ozgur.pub604.c2709

This movement can easily be illustrated in Libya, where women have started to pay more attention to the possible dangers of cosmetic products and are becoming increasingly interested in organic ones (Ajayi et al., 2024).

Despite the global rise in popularity of organic cosmetics, specifically, aspects influencing consumer purchase intentions however remain less explored, especially from the perspective of emerging markets such as Libya. Much of the research has been done in Western markets, which may not consider cultural and socio-economic drivers that influence purchasing behaviour in Libya (Sasounian et al., 2024). Hence, there are societal norms, cultural aspects, and economic conditions shaping the complexity of the Libyan market making it imperative to understand the key drivers of consumer intention towards organic beauty products (Manful et al., 2024).

Therefore, the objective of this study is to explore the factors affecting purchasing intentions toward organic cosmetics among Libyan females. Specifically, the objectives include evaluating the influence of product knowledge, prior experience, and values (health and environmental) on purchase intention. Moreover, the present study is designed to examine the function of attitude as a mediator between values, knowledge, and purchasing intentions. Finally, this study intends to provide insights for marketers on how Libyan female consumers should be reached with their marketing strategies regarding cultural preferences and motives of health consciousness.

Knowledge of these variables is essential for companies aiming to enter the Libyan organic cosmetic market. This study can aid marketers in identifying its prominent promotional strategies as it helps recognize the main driving forces behind purchasing intentions (and consumer preferences) and therefore facilitates proper brand positioning. These findings will add to the literature by addressing the gap associated with consumer behavior within a North African context (Libya), as well as providing a basis for future studies focused on marketing strategies regarding organic products.

1.2. Theoretical Framework

This study chose three basic shapes found in writing the hypothetical structure: the Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB), and the ecological consumer-purchasing model. They are used to explain and predict human behavior, specifically the purchasing intentions of Libyan females toward organic cosmetic products. Together, these theories provide a broad conceptual model for this study.

First, TRA Theory proposed by Fishbein and Ajzen back in 1975, is a well-known model that attempts to explain and predict human behavior through intentions (Heller et al., 2013). TRA proposes that an intention to behave is determined by two main predictors: attitude and subjective norms (Figure 1). Within the TRA framework, attitude is defined as an individual's positive or negative evaluation of performing a specific behavior. Pointing the way to behavioral intention, one of its main predictors indicates that a positive evaluation of a behavior increases the likelihood that a person will intend to perform it. For example, in the area of organic cosmetic purchases, a favorable view towards the health advantages of products not containing chemicals is often closely correlated with their purchasing intentions. Many studies have confirmed the importance of attitudes as a precursor of purchasing decisions that indicate consumer preferences and perceptions of complete consumer information (Pudaruth et al., 2015).

On the other hand, Subjective norms refer to the perceived social pressure an individual may feel toward performing a certain behavior or not. This element embodies the social effect of major others' family, friends, or society, as it pertains to the decision a person will make (Limbu & Ahamed, 2023). Consumers feel pressure to behave like the people around them, If the consumer feels that the everyday environment encourages him/her to buy organic products he/she has no choice rather to buy them. Purchasing intentions can be strongly influenced by the motivation to comply with social standards as well as the manipulative influence of important social actors (Gundala & Singh, 2021). Therefore, TRA provides a strong basis for explaining how internal consumer attitudes along with external social pressures shape behaviors in order to form behavioral intentions and thus constitutes an appropriate model to investigate organic cosmetic products.

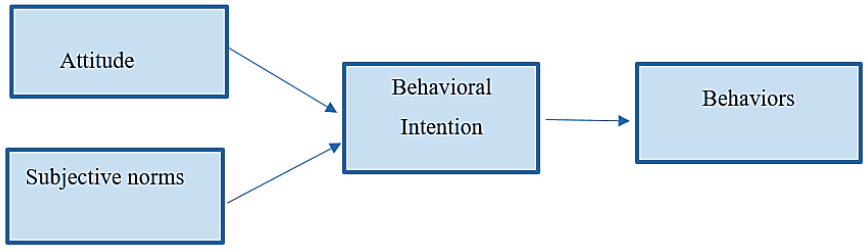

Figure 1. Theory of Reasoned Action Design (Nisson & Earl, 2020).

Second, the Theory of Planned Behavior (TPB) offers TPB that was proposed by Ajzen (1991) as an extension of the Theory of Reasoned Action. It builds on TRA by including an additional variable, Perceived Behavioral Control (PBC), which reflects the individual's perceptions of ease or difficulty in executing the behavior. TPB has been a powerful and even dominant social psychological theory for predicting human behavior, especially in the domain of consumer research (Figure 2). As TRA, TPB identifies attitude and subjective norms as the most important direct antecedents of behavioral intention.

However, TPB takes it a step further acknowledging the limitations of TRA in situations where an individual could lack the control to execute his/her intentions. A consumer may have a great attitude toward wanting to buy organic cosmetics and also feel social normative pressure in the direction of buying these merchandise even though situational constraints (e.g., availability or cost) might stop her from shopping for them (Ajzen, 1991).

The third component, Perceived Behavioral Control (PBC), is related to the real or perceived ease or difficulty of performing the behavior in question and is assumed to reflect past experience as well as anticipated impediments and obstacles. It implies that despite a favorable attitude or supportive social norms, consumers may not intend to take action when they see many obstacles in the way. In other words, PBC has a direct effect on actual behavior, as well total indirect effect through behavioral intention (Hagger, 2019). Therefore, when consumers are equipped with sufficient resources and opportunities to actually obtain organic products, they are likely to purchase them.

PBC is the only component of TPB that increases the predictive power for behavioral intentions compared to TRA. However, TPB captures other factors in addition to individual attitudes and subjective norms that provide a more holistic framework (Sutisna & Handra, 2022). This is important in emerging markets such as Libya, where barriers to purchase (e.g., lack of product availability) could influence the decision to buy, and in which the ability of the theory to incorporate external constraints into its description makes it very useful for prediction.

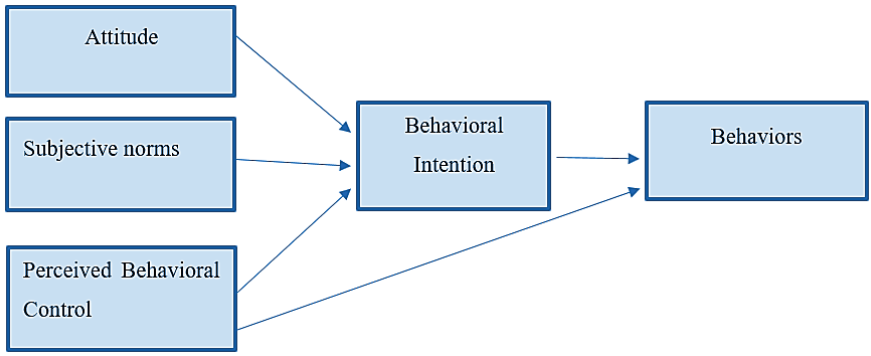

Figure 2. Theory of Planned Behaviour Design (Park & Kim, 2008).

Lastly, the Ecological Consumer Purchasing Model, or ECPM developed by professors Tomás Baeguil and Antonio Chamorro specifically examines consumer Behaviour intentions toward sustainable purchasing behavior (Figure 3). The model describes a five-step walk from ecological indifference to engaged ecological choice (Martinus & Anggraini, 2018). Ecological apathy, a total disinterest in the destruction of our ecology, is the starting stage. With these sequences, consumers start to become aware of environmental problems and have a sense of responsibility toward buying sustainably. The last step is the stage of actual decision-making, in which consumers deliberately select products that fit their ecological ideals (Mari et al., 2020).

The model recognizes that, although consumers have a positive attitude towards environmental protection, not all environmentally conscious consumers will always buy organic products. Consumers may become interested in ecology but often cannot act on these intentions because there are barriers like high prices, brand loyalty, or limited availability. Understanding the mismatches between attitude and behavior is crucial for marketers who want to effectively overcome those challenges in selling organic cosmetics (Mari et al., 2020).

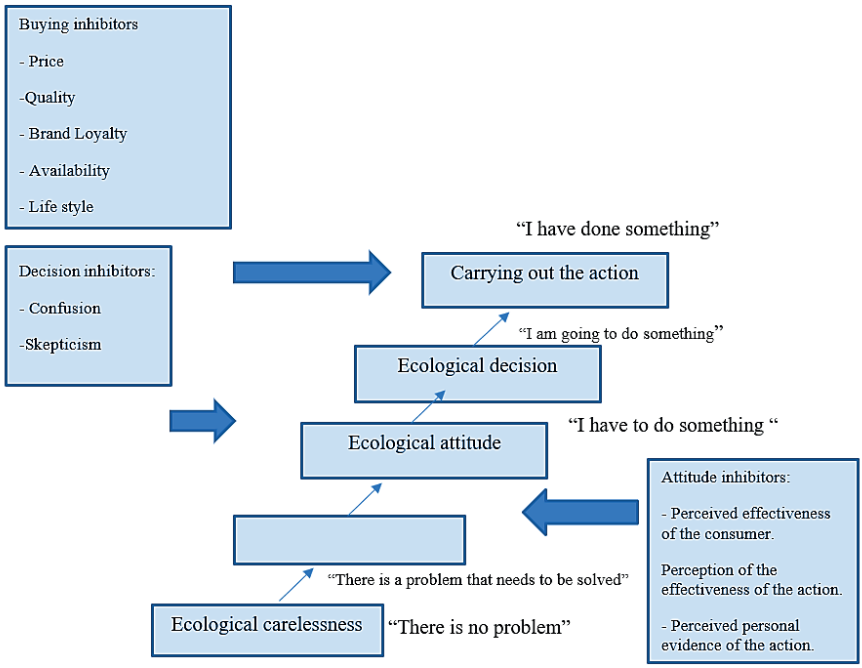

Figure 3. Ecological Consumer Purchasing Model (Andrés & Martinez, 2006).

1.3. Findings of Previous Studies

1.3.1. Product Knowledge

Product Knowledge is a combination of three things: subjective product knowledge, objective product knowledge, and experience. These factors play a vital role in influencing consumers' perceptions and decision-making processes. How well a consumer understands a product is directly related to their evaluation of that product. For example, it allows customers to store product information in their minds, which they use to evaluate and compare options when making purchasing decisions (Taherparvar et al., 2014). This is especially important as subjective knowledge, which extends beyond objective measures by focusing on consumer perspectives and decision-making shortcuts, provides additional insights due to its less restrictive nature derived from direct experience rather than prior communication. Indeed, subjective knowledge is a stronger predictor of consumer decision-making and enhances their ability to base judgments on personal knowledge (Moorman et al., 2004).

Groza et al. (2016) found that consumer behavior is more strongly influenced by subjective knowledge than by objective knowledge. In the context of organic food, where consumers often make purchases based on perceptions and self-reported knowledge, subjective knowledge was shown to better predict buying intentions (Groza et al., 2016). Therefore, this study measures both aspects of product knowledge to effectively map its impact on consumer purchase intentions.

1.3.2. Previous Experience

Previous experience is one of the biggest drivers of consumer behavior and a predictor of future purchase intentions. Past consumer experiences with green or organic products significantly influence their preferences and expectations, thus affecting their actual green purchase behavior (Kim & Chung, 2011). This supports the idea that behavior is learned, where past positive experiences drive greater consumer loyalty and repeat purchases. For example, Bamberg (2003) showed that past buying behavior can predict future actions, suggesting that customers are more likely to buy products similar to those they had positive experiences with (Bamberg, 2003).

Further, intentions to purchase non-chemical beauty and hair products show a significant positive correlation with past usage (Ma et al., 2018). Their findings indicate that favorable experiences with such products increase the desire to repurchase. Further, it was demonstrated that prior positive experiences and accumulated knowledge significantly influence consumer intentions to buy natural personal care products (Jones, 2017).

1.3.3. Health Awareness

Health awareness plays a major role in consumer decision-making, particularly in the organic products segment. Health-conscious individuals tend to select products that promote well-being and avoid those containing harmful chemicals (Mazurek-Łopacińska et al., 2022). Health awareness includes aspects like self-awareness, proactive health management, and a drive for health-related information (Hall et al., 2013). Consumers often perceive organic products as healthier options due to their lack of pesticides and synthetic additives (Bhaskaran et al., 2006).

In developing countries, where health concerns are increasingly prioritized, consumers make purchasing choices aligned with their health values and those of their families. The demand for chemical-free agricultural products has grown as individuals become more aware of the health benefits associated with organic consumption (Mari et al., 2020).

1.3.4. Environmental Awareness

Environmental awareness refers to consumers' psychological and emotional responses to ecological issues, influencing their preference for greener products. Environmentally conscious consumers are driven by a desire to support sustainability, choosing products with a lower environmental impact (Golob & Kronegger, 2019). Rising environmental concerns have reduced the use of chemicals in personal care products, leading consumers to prefer organic options, perceived as safer for the environment (Gracia & de Magistris, 2008). The organic personal care industry is viewed as a leader in eco-friendly practices, avoiding animal testing, synthetic chemicals, and pesticides (Benedek & Katalin, 2013).

1.3.5. Mediating Effect of Attitude

Attitude is a well-studied concept in consumer behavior and is considered a primary predictor of behavioral intentions. It serves as an intermediary between knowledge, values (e.g., health and environmental awareness), and purchasing intentions (Gök & Ulu, 2018). Positive attitudes toward organic products are associated with favorable evaluations, while negative attitudes lead to unfavorable reactions (Ghazali et al., 2017). Besides, Ettinger et al. (2020) emphasized that attitudes form through information exposure, influencing cognitive, emotional, and behavioral responses (Ettinger et al., 2020).

Attitude components affect behavior, and cognition, and are shaped by consumer values, which, in turn, affect purchasing intentions. For example, D'Souza et al. (2006) found that values like environmental and health consciousness positively influence attitudes toward natural personal care products (D'Souza et al., 2006). Moreover, it was reported that positive attitudes toward non-chemical food products correlate with higher information-seeking behavior and greater purchase intent for organic items (Cheung & To, 2021).

In summary, previous research suggests that factors such as product knowledge, prior experience, health awareness, and environmental consciousness significantly influence consumer attitudes, which act as mediators impacting purchasing intentions. This highlights the importance of understanding these elements when predicting consumer behavior in the organic personal care market.

1.4. Research Model

Figure 4 shows the research model design based on the literature review analysis.

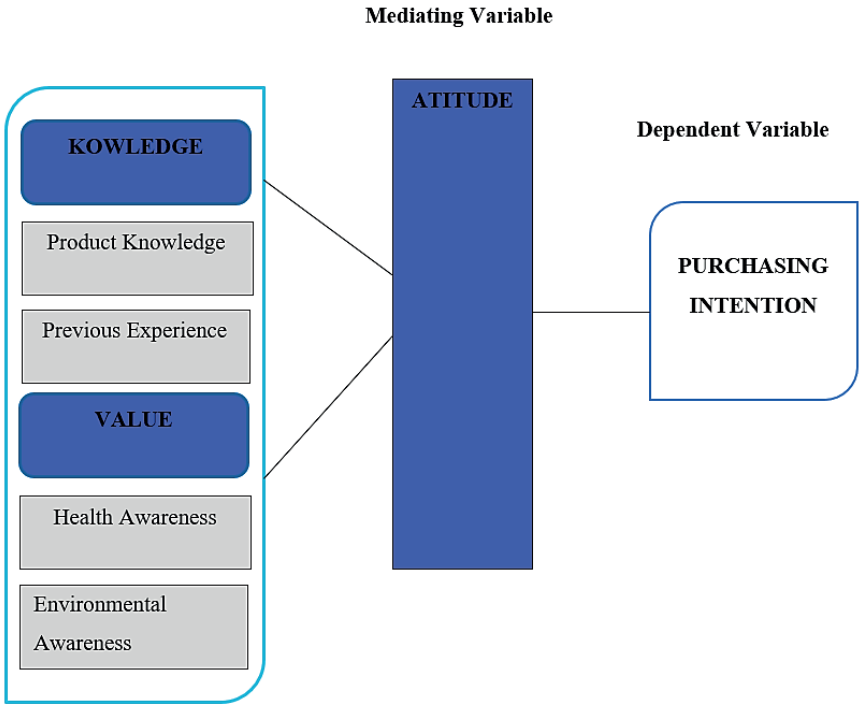

Figure 4. Research model design

1.4.1. Knowledge

There has been a noticeable change in consumer preferences for organic products in the Libyan market, mainly due to increased product knowledge. As consumers become more informed about the benefits of organic cosmetics, their purchasing behavior reflects this knowledge. Knowledge about organic products typically comes through a variety of channels, including marketing campaigns, environmental advocacy, and press release advertisements. For example, advertisements highlighting the absence of harmful chemicals in baby shampoo effectively communicate the safety of the products, attracting health-conscious parents. Such targeted promotions help raise public awareness about the advantages of organic products, particularly in terms of their health benefits and environmental sustainability (Wojciechowska-Solis & Barska, 2021).

Moreover, eco-friendly certifications, such as Naturland E.V., play a crucial role in helping consumers distinguish between organic and non-organic products. In the context of Libya, education and awareness campaigns have been instrumental in shaping consumer preferences towards environmentally friendly products. As a result, knowledge is a significant determinant of the tendency to use organic beauty cosmetics. This understanding led to the formulation of two key hypotheses; firstly, there is a positive relationship between product knowledge and the purchasing behavior towards beauty organic cosmetics. Secondly, there is a positive relationship between previous experience with organic products and the purchasing behavior of beauty organic cosmetics.

Additionally, the study explores the role of attitude as a mediator between knowledge (encompassing both product knowledge and previous experience) and purchasing behavior. By examining whether attitude significantly mediates this relationship, the research aims to provide a deeper understanding of the factors driving consumer intentions toward organic cosmetic products.

1.4.2. Values

Consumer values play a pivotal role in shaping the intention to buy organic products, particularly in Libya. Many studies indicated that when people select organic items, it often reflects a deeper commitment to personal health and a desire to support environmental sustainability (Martinus & Anggraini, 2018). In Libya, this trend is becoming increasingly evident; cosmetic retailers adopted eco-friendly practices like recycling and emphasizing the environmental benefits of their offerings, which align well with the values of eco-conscious buyers. Health advantages are also a major selling point, as seen in the frequent TV commercials that highlight the use of natural ingredients, catering to those seeking safer, healthier product options.

Therefore, Values play a pivotal role in shaping consumers' purchasing intentions for beauty organic cosmetics. Greater consumer awareness leads to more positive attitudes toward non-chemical products and increased demand for detailed product information from labels and natural retailers (Seedee, 2018). This indicates that consumer values, specifically related to environmental awareness and health consciousness, significantly influence their purchase intentions.

Drawing on this understanding, the study formulates hypotheses regarding the potential relationships. First, there is a positive correlation between environmental awareness and the intention to purchase organic

skincare products. Second, health consciousness positively influences the intention to buy organic skincare products. Furthermore, the study examines the mediating role of attitude in linking consumer values (environmental awareness and health consciousness) with purchasing behavior. The hypothesis suggests that attitude mediates the relationship between these values and buying behavior, providing insights into how consumer values translate into actual purchase intentions for non-chemical beauty cosmetics.

1.5. Research Hypothesis

The study hypothesis can be formulated as follows:

H1- There is relationship between product knowledge and the purchase intention of organic beauty cosmetics.

H2- There is a relationship between previous experience and the purchase intention of organic beauty cosmetics.

H3- There is relationship between environmental awareness and the purchase intention of beauty organic cosmetics.

H4- There is relationship between health awareness and the purchase intention of beauty organic cosmetics.

H5- Attitude serves as a mediator between knowledge (including product knowledge and prior experience) and the intention to purchase beauty organic cosmetics.

H6- Attitude serves as a mediator between values (environmental awareness, health awareness) and purchase intention of beauty organic cosmetics.

2. Methodology

2.1. Research Approach

This study employed a quantitative research approach, which is recognized for its objective nature and ability to systematically examine relationships between variables using numerical data. This study aims to test hypotheses and assess certain constructs, including knowledge, values, attitudes, and purchase intentions of Libyan females towards organic cosmetic products; reflecting its associated features with nature abstraction, hence selection of quantitative is appropriate. This method allows data collection in a planned way and enables pale value statisticians where it identify applied patterns & relationships between the variables being studied. When using this method, it helps in either proving or disproving the visual presentations of what has

been hypothesized and these are often supported by rigorous statistical tools that augment its veracity and accuracy of practice (Creswell, 2014).

Results can also be generalized to a wider population when the appropriate large sample is used, which again is another strength of this approach. It adds to the knowledge of consumer behavior in the case of the organic skincare segment and lessons learned can be replicated to some extent. The approach has some limitations, which include self-reported with possible biases but still adequate for securing the set intention of the study research objectives and questions.

2.2. Research Design

This study had a survey-based design and used a structured questionnaire based on a 5-point Likert scale, designed to reflect the respondents' attitudes, beliefs, and intentions. This design was chosen as it enables the researcher to collect data from a larger sample that aids in exploring factors affecting Libyan female consumers' purchasing intentions toward organic beauty cosmetics. The survey design was cost-effective and efficient, allowing the researcher to provide uniform data, which is necessary for statistical analysis such as correlation and regression (Neuman, 2013).

The questionnaire included the following sections and was adapted from previously validated instruments. Demographic data includes questions regarding age, educational level, income, and employment status. Product Knowledge and Experience: Items that assess the knowledge of organic cosmetics and the current use experience. Values (Health and Environmental Awareness): A series of items assessing respondents' health consciousness and concern for the environment. Attitudes and Purchase Intentions: Questions regarding attitudes towards organic cosmetics and intentions to buy these products.

2.3. Population and Sampling

The target population comprised Libyan females aged 18 and above, residing in Misurata, Libya. A power analysis using G*Power software was conducted to determine the required sample size. Using a multiple linear regression model with four predictors, an alpha level of 0.05, and a desired power of 0.80, a medium effect size ($f^2 = 0.15$) suggested a minimum sample size of 85 participants. However, the actual sample size of 400 respondents far exceeds this minimum requirement, enhancing the reliability and generalizability of the findings. The larger sample size reduces the risk of Type II errors and allows for more precise estimates and subgroup

analyses. The study employed a random sampling technique, which ensures that each member of the population has an equal chance of being selected, thereby enhancing the representativeness and generalizability of the findings (Fraenkel et al., 2011).

2.4. Data Collection Procedure

Data was collected over four weeks, using both online and offline methods. Surveys were distributed online through Google Forms and shared on popular social media platforms such as Facebook and Instagram. There were paper questionnaires distributed in beauty salons, department stores, and online classifications of major universities. This dual approach helped to increase response rates and ensure diversity among respondents, capturing a wide range of demographic characteristics.

2.5. Ethical Considerations

Ethical standards were advocated throughout the research process to ensure the integrity of the study. Informed consent was obtained from all participants, who were fully briefed on the purpose of the study and the voluntary nature of their participation. Participants were assured of their right to withdraw from the study at any time. Confidentiality was maintained by anonymizing the responses and securely storing the data. Ethical approval was obtained from the relevant academic authorities before the commencement of data collection, ensuring compliance with established research guidelines.

2.6. Data Analysis

The collected data was analyzed using IBM SPSS (version 27.0) and RStudio (version 2024.09.0). The statistical analysis comprised several key steps: Confirmatory Factor Analysis (CFA): Conducted to validate the constructs and ensure the reliability of the measurement scales. Reliability Analysis: Cronbach's Alpha was used to assess the internal consistency of the scales measuring the key variables. Descriptive Statistics: Calculated to summarize the demographic characteristics of the respondents and the central tendencies (mean) and variability (standard deviation) for each variable.

Moreover, simple Linear Regression was employed to test the relationships between the independent variables (e.g., knowledge, values) and the dependent variable (purchasing intention). The analysis used the R-value to indicate the strength and direction of the relationships and

R^2 to explain the variance in purchasing intention accounted for by the independent variables. The F-statistic and t-tests were used to determine the significance of the overall model and individual predictors.

Finally, to examine the mediating role of attitude between knowledge (product knowledge, previous experience), values (environmental and health awareness), and purchasing intention, the PROCESS macro for SPSS was utilized (Mediation Analysis). This analysis allowed the study to test whether the effect of the independent variables on purchasing intention is transmitted through the mediator (attitude). The mediation analysis provided estimates of direct, indirect, and total effects, with confidence intervals (CI) used to assess the significance of the indirect effects. The results indicated that if the CI for the indirect effect does not include zero, the mediation is significant.

3. Results

3.1. Confirmatory factor analysis

To evaluate the measurement model and assess the relationships between observed variables and their underlying latent constructs, a Confirmatory Factor Analysis (CFA) was conducted. The CFA aimed to confirm the factor structure of the proposed model, which included five latent variables: Product Knowledge, Past Experience, Environmental Consciousness, Health Consciousness, Attitude, and Purchasing Intention. Each latent variable was measured by five items, and model fit indices, factor loadings, and covariances between latent constructs were examined to determine the adequacy of the measurement model.

Table 1 shows that the chi-square test was significant ($\chi^2 = 2207.4$, $p < 0.001$), indicating some deviation between the model and the data. The Tucker-Lewis Index (TLI = 0.893) was slightly below the ideal 0.90 threshold. However, the Comparative Fit Index (CFI = 0.904) and Standardized Root Mean Square Residual (SRMR = 0.045) suggested an acceptable fit, with values near the recommended thresholds.

Table 1. Model Fit Indices

Fit Index	Value	Acceptable Threshold
Chi-square (χ^2)	2207.4	$p < 0.05$
Degrees of Freedom (df)	390	
Comparative Fit Index (CFI)	0.904	> 0.90
Tucker-Lewis Index (TLI)	0.893	> 0.90
Standardized Root Mean Square Residual (SRMR)	0.045	< 0.08

As shown in Table 2, all factor loadings were significant ($p < 0.001$), and their standardized values range from 0.695 to 0.997. This indicates that all items are reliable indicators of their respective latent constructs. The loadings were particularly strong for Purchasing Intention and Attitude, showing that these items effectively measure the underlying latent variables.

Table 2. Factor Loadings of the Study Variables

Latent Variable	Items	Estimate	Std. Error	p-value	Std. all
Product Knowledge	Item 1	1	–	–	0.754
	Item 2	1.272	0.062	<0.001	0.949
	Item 3	1.223	0.062	<0.001	0.914
	Item 4	1.021	0.06	<0.001	0.805
	Item 5	1.124	0.062	<0.001	0.850
Past Experience	Item 1	1	–	–	0.928
	Item 2	1	0.03	<0.001	0.920
	Item 3	1.026	0.031	<0.001	0.918
	Item 4	1.001	0.032	<0.001	0.909
	Item 5	0.956	0.028	<0.001	0.925
Environmental Consciousness	Item 1	1	–	–	0.939
	Item 2	1.024	0.027	<0.001	0.958
	Item 3	0.715	0.033	<0.001	0.772
	Item 4	0.895	0.051	<0.001	0.695
	Item 5	0.912	0.052	<0.001	0.693
Health Consciousness	Item 1	1	–	–	0.921
	Item 2	0.92	0.029	<0.001	0.920
	Item 3	0.954	0.027	<0.001	0.945
	Item 4	0.871	0.029	<0.001	0.896
	Item 5	0.813	0.029	<0.001	0.877
Attitude	Item 1	1	–	–	0.994
	Item 2	1.015	0.01	<0.001	0.986
	Item 3	0.967	0.01	<0.001	0.986
	Item 4	1.005	0.018	<0.001	0.949
	Item 5	0.934	0.033	<0.001	0.821
Purchasing Intention	Item 1	1	–	–	0.997
	Item 2	0.972	0.01	<0.001	0.982
	Item 3	0.941	0.027	<0.001	0.873
	Item 4	0.94	0.017	<0.001	0.942
	Item 5	0.968	0.021	<0.001	0.922

As shown in Table 3, the covariances between latent variables provide important insights into the relationships between different constructs in the model. The strongest covariance was observed between Attitude and Purchasing Intention (standardized covariance = 0.997), indicating a

very strong positive relationship. Other significant relationships include the covariances between Health Consciousness and Attitude (0.337), Environmental Consciousness and Health Consciousness (0.493), and Past Experience and Purchasing Intention (0.308), all of which suggest meaningful connections between these constructs.

Table 3. Study variable Covariances

Latent Variables		Covariance	Std. Error	p-value	Standardized Covariance
Product Knowledge	Past Experience	0.02	0.021	0.353	0.049
	Environmental Consciousness	0.08	0.022	<0.001	0.199
	Health Consciousness	0.061	0.023	0.009	0.139
	Attitude	0.052	0.021	0.012	0.131
	Purchasing Intention	0.051	0.021	0.013	0.129
Past Experience	Environmental Consciousness	0.077	0.026	0.003	0.157
	Health Consciousness	0.112	0.029	<0.001	0.209
	Attitude	0.152	0.026	<0.001	0.311
	Purchasing Intention	0.15	0.026	<0.001	0.308
Environmental Consciousness	Health Consciousness	0.261	0.031	<0.001	0.493
	Attitude	0.081	0.025	0.001	0.169
	Purchasing Intention	0.082	0.025	0.001	0.171
Health Consciousness	Attitude	0.178	0.029	<0.001	0.337
	Purchasing Intention	0.175	0.029	<0.001	0.332
Attitude	Purchasing Intention	0.478	0.034	<0.001	0.997

Overall, the confirmatory factor analysis (CFA) revealed an acceptable fit for the measurement model, as indicated by the fit indices (CFI = 0.904, SRMR = 0.045). The factor loadings were all significant and strong, confirming the adequacy of the items in measuring their respective latent constructs. The covariances between latent variables show meaningful relationships, with a particularly strong association between Attitude and

Purchasing Intention. These findings support the validity of the measurement model and indicate that the latent variables are well represented by the observed items.

3.2. Reliability analysis

Reliability is a critical aspect of any research instrument, ensuring that the measurement tools used consistently capture the intended variables. In social science research, Cronbach's Alpha is one of the most used indicators to assess the internal consistency of a scale, reflecting how closely related a set of items are as a group. A higher Cronbach's Alpha value, typically above 0.70, indicates strong internal reliability, meaning the items within the scale reliably measure the underlying construct. In this study, Cronbach's Alpha was calculated for each construct to ensure that the scales were used to measure key factors, such as product knowledge, past experience, environmental and health consciousness, attitude, and purchasing intention.

Table 4 shows the reliability of various constructs in the study. The Cronbach's Alpha values for all constructs exceed the commonly accepted threshold of 0.70, indicating strong internal consistency and reliability across the items. Notably, Purchasing intention and Attitude exhibit exceptionally high Cronbach's Alpha values of 0.979 and 0.976, respectively, reflecting a high degree of agreement among respondents on these measures. Similarly, Past experience (0.964) and Health consciousness (0.960) demonstrated substantial reliability, suggesting that participants consistently responded to the items measuring these constructs. Other variables, including Product knowledge (0.923), Environmental consciousness (0.907), Value (0.926), and Knowledge (0.857), also showed strong reliability, supporting the validity of the constructs used in this study. These findings ensure that the measures used to assess the factors influencing purchasing intentions are robust and can be confidently used in further analyses.

Table 4. Cronbach's Alpha for Reliability of Constructs

Variables	N of Items	Cronbach's Alpha
Product knowledge	5	0.923
Past experience	5	0.964
Knowledge	10	0.857
Environmental Consciousness	5	0.907
Health Consciousness	5	0.960
Value	10	0.926
Attitude	5	0.976
Purchasing intention	5	0.979

3.3. Demographic and basic information of the participants in the study

Table 5 provides a detailed breakdown of the demographic characteristics of the respondents in this study, highlighting key factors that may influence purchasing intentions for organic cosmetic products among Libyan females. The age distribution showed that approximately half of respondents are between 18-29 years old (53.0%), with a smaller percentage in older age brackets, including 30-39 years (23.5%), 40-49 years (13.3%), and 50-60 years (10.3%). Regarding educational attainment, a significant portion of the sample holds postgraduate qualifications (34.3%), followed by those with graduate (30.5%) and undergraduate (23.0%) degrees, while 12.3% possess professional qualifications.

In terms of occupation, nearly half of the respondents are students or part-time employees (48.0%), and 35.0% are full-time employees, reflecting a workforce that is predominantly engaged in either part-time or full-time employment. Interestingly, a small minority is either self-employed (0.3%) or falls into the other category (2.0%). Finally, the monthly income data revealed that nearly half of the respondents (48.8%) earn between $100 and $500, with fewer individuals in higher income brackets such as $600-$1500 (23.3%) and $1600-$3000 (9.5%). Additionally, 16.5% of respondents are financially dependent, which may influence their purchasing power.

Table 5. Demographic Characteristics of the Study Sample

Variables	N	%
Age in years		
18-29	212	53.0%
30-39	94	23.5%
40-49	53	13.3%
50-60	41	10.3%
Education		
Undergraduate	92	23.0%
Graduate	122	30.5%
Postgraduate	137	34.3%
Professional Qualifications	49	12.3%
Occupation		
Unemployed	59	14.8%
Student or part-time employee	192	48.0%
Self-employed	1	0.3%

Full-time employee	140	35.0%
Other	8	2.0%
Monthly Income in $		
Less than 100	8	2.0%
100 - 500	195	48.8%
600-1500	93	23.3%
1600 - 3000	38	9.5%
Dependent	66	16.5%

3.4. Descriptive statistics of the study variables

Table 6 shows the descriptive statistics for the study variables. The results revealed high mean scores across all constructs, indicating a generally positive response from the participants. The mean score for product knowledge is 4.37 (SD = 0.673), and for past experience, it is 4.46 (SD = 0.715). The overall knowledge score shows a strong agreement level with a mean of 4.41 and a relative weight of 88.3%, suggesting that respondents have a high level of familiarity and experience with organic cosmetic products.

Regarding the value variables, both environmental consciousness and health consciousness exhibit high mean scores of 4.42 (SD = 0.677) and 4.41 (SD = 0.710), respectively. The combined value score (mean = 4.42, SD = 0.604) indicates strong agreement, with a relative weight of 88.3%. These results reflect that the respondents place a high importance on environmental and health considerations when purchasing organic cosmetics. The mediating variable, attitude, also shows a high level of positive response, with a mean of 4.39 (SD = 0.691) and a relative weight of 87.8%. This suggests that participants generally hold favorable attitudes toward organic cosmetics.

Finally, the dependent variable, purchasing intention, has a mean score of 4.39 (SD = 0.680), indicating strong agreement with a relative weight of 87.8%. This result implies that the respondents have a high intention to purchase organic cosmetic products, consistent with their positive knowledge, values, and attitudes.

Table 6. Descriptive Statistics for Study Variables

Variables	Mean	Std. Deviation	Relative weight	Response level
1. Independent variable 1 (Knowledge)				
Product knowledge	4.37	0.673	87.4%	Strongly agree
Past experience (total)	4.46	0.715	89.2%	Strongly agree
Knowledge (total)	4.41	0.504	88.3%	Strongly agree
2. Independent variable 2 (Value)				
Environmental Consciousness	4.42	0.677	88.4%	Strongly agree
Health Consciousness	4.41	0.710	88.2%	Strongly agree
Value (total)	4.42	0.604	88.3%	Strongly agree
3. Mediating variable (Attitude)				
Attitude (total)	4.39	0.691	87.8%	Strongly agree
4. Dependent variable (Purchasing intention)				
Purchasing intention (total)	4.39	0.680	87.8%	Strongly agree

3.5. The relationship between knowledge, values variables, and Purchasing intention

Table 7 presents the results of the simple linear regression analysis examining the impact of the independent variables (product knowledge, past experience, environmental consciousness, and health consciousness) on the purchasing intention of Libyan females towards organic cosmetic products.

First, for Product Knowledge, the analysis showed a significant positive relationship between product knowledge and purchasing intention ($R=.134$, $R^2=0.018$, $p=0.008$). Although the R^2 value indicates that only 1.8% of the variance in purchasing intention is explained by product knowledge, the significant p-value and the positive regression coefficient ($B=0.135$ $t=2.685$) suggest that greater product knowledge is associated with a higher intention to purchase organic cosmetics. Second, Past experience demonstrated a stronger influence on purchasing intention compared to product knowledge ($R=.301$, $R^2=0.091$, $p<0.001$). The R^2 value of 0.091 implies that 9.1% of the variance in purchasing intention is explained by past experience. The regression coefficient ($B=0.286$, $t=6.294$) is positive and highly significant, indicating that individuals with more favorable

past experiences are significantly more likely to express higher purchasing intentions.

The regression analysis indicated also that the relationship between environmental consciousness and purchasing intention is positive and statistically significant (R=.193, R2=0.037, p<0.001). The R^2 value of 0.037 suggests that 3.7% of the variance in purchasing intention can be attributed to environmental consciousness. With a positive regression coefficient (B=0.194, t=3.922), the results indicated that a greater awareness of environmental issues is associated with a higher likelihood of purchasing organic cosmetics. Lastly, Health consciousness exhibited the strongest influence on purchasing intention among all the predictors (R=.332, R^2=0.110, p<0.001). The R^2 value of 0.110 indicates that 11% of the variance in purchasing intention is explained by health consciousness. The regression coefficient (B=0.318, t=7.022) is positive and highly significant, suggesting that individuals who prioritize health are more inclined to purchase organic cosmetics.

Overall, the regression analysis highlighted that all independent variables significantly predict purchasing intention, with health consciousness having the strongest effect, followed by past experience, environmental consciousness, and product knowledge. The findings suggest that consumers' awareness of health benefits and previous positive experiences play a crucial role in their decision to purchase organic cosmetic products.

Table 7.Simple linear regression analysis for the impact of independent variables on the Purchasing intention

Predictor	R	R^2	Adjusted R^2	F	B	Std. Error	t	P value
Product knowledge	.134	0.018	0.015	7.210	0.135	0.050	2.685	0.008**
Past experience	.301	0.091	0.088	39.61	0.286	0.045	6.294	0.000**
Environmental consciousness	.193	0.037	0.035	15.38	0.194	0.049	3.922	0.000**
Health consciousness	.332	0.110	0.108	49.31	0.318	0.045	7.022	0.000**

Dependent Variable is Purchasing intention.

3.6. Mediation regression analysis estimation

Table 8 shows the results of a multiple regression analysis examining the impact of knowledge and attitude on purchasing intention. The model shows a very strong relationship, with an R-value of .978 and an R^2 of .956, indicating that 95.6% of the variance in purchasing intention is explained by the combination of knowledge and attitude. Knowledge alone does not significantly predict purchasing intention (B = 0.015, p = 0.311); however, the attitude has a highly significant effect (B = 0.960, p = 0.000). The high F value (3485.5) further supports the strength of this model, underscoring the critical mediating role of attitude in the relationship between knowledge and purchasing intention.

Table 8. The impact of knowledge and Attitude on the purchase intention

Predictor	R	R^2	F	B	Std. Error	t	P value
knowledge	.978	.956	3485.5	0.015	0.015	1.01	0.311
Attitude				0.960	0.011	89.05	0.000*

Dependent Variable is Purchasing intention.

Additionally, Table 9 shows the results of a mediation analysis using the PROCESS macro, assessing whether attitude mediates the relationship between knowledge and purchasing intention. The total effect of knowledge on purchasing intention was significant (B = 0.408, 95% CI: 0.282 - 0.535), indicating that knowledge positively influences purchasing intention. However, without attitude, the direct effect of knowledge became non-significant (B = 0.015, 95% CI: -0.014 - 0.044), suggesting that knowledge alone does not directly influence purchasing intention once attitude is considered. The significant indirect effect (B = 0.393, 95% CI: 0.259 - 0.529) confirms that attitude mediates the relationship between knowledge and purchasing intention. This result highlights that knowledge influences purchasing intention primarily through its effect on shaping a positive attitude towards organic products, rather than exerting a direct effect on purchasing decisions.

Table 9. PROCESS Macro test output for the mediation analysis of the Attitude between knowledge and purchase intention

Effect of knowledge on purchase intention	B	Std. Error	95% CI for B
Total effect	.408*	.064	0.282 - 0.535
Direct effect	.015	.014	-0.014 - 0.044
Indirect effect	.393*	.068	0.259 - 0.529

** Significant ay P-value< 0.05*

On the other hand, Table 10 shows the results of a multiple regression analysis examining the impact of values (environmental consciousness and health consciousness) and attitude on purchasing intention. The model showed a very strong relationship, with an R-value of 0.978 and an R^2 of 0.957, indicating that 95.7% of the variance in purchasing intention is explained by the combined effects of value and attitude. The analysis revealed that value alone does not significantly predict purchasing intention (B = -0.002, p = 0.864); however, attitude exerts a significant effect (B = 0.964, p = 0.000). This suggests that although values related to environmental and health consciousness do not directly influence purchasing intention, the attitude formed as a result of these values plays a crucial mediating role. The high F value of 3373.9 further underscores the strength of the model, highlighting the central importance of attitude in shaping purchasing decisions.

Table 10. The impact of value and Attitude on the purchase intention

Predictor	R	R^2	F	B	Std. Error	t	P value
Value	0.978	0.957	3373.9	-0.002	0.012	-0.172	0.864
Attitude				0.964	0.011	88.91	0.000*

Dependent Variable is Purchasing intention.

Finally, Table 11 shows the results of a mediation analysis using the PROCESS macro to assess whether attitude mediates the relationship between values (environmental and health consciousness) and purchasing intention. The total effect of values on purchasing intention was significant (B = 0.342, 95% CI: 0.236 - 0.447), indicating that values positively influence purchasing intention. However, the direct effect became non-

significant when attitude was not considered (B = -0.002, 95% CI: -0.026 - 0.022), suggesting that values do not directly impact purchasing intention in the presence of attitude. The significant indirect effect (B = 0.344, 95% CI: 0.226 - 0.458) confirms that attitude fully mediates the relationship between values and purchasing intention. This result demonstrates that values, such as environmental and health consciousness, influence purchasing intentions primarily through their effect on forming a positive attitude towards organic skincare products, rather than exerting a direct influence on purchasing behavior.

Table 11. PROCESS Macro test output for the mediation analysis of the Attitude between value and purchase intention.

Effect of knowledge on purchase intention	B	Std. Error	95% CI for B
Total effect	.342*	.054	0.236 - 0.447
Direct effect	-.002	.012	-0.026 - 0.022
Indirect effect	.344*	.058	0.226 - 0.458

****Significant ay P-value< 0.05***

4. Discussion

The present study examined the factors influencing the purchasing intentions of organic skincare products among Libyan females, focusing on the effects of product knowledge, past experience, health and environmental consciousness, and attitude. The findings explore consumer behavior in the Libyan market, particularly in the context of sustainable and ethical consumption.

The findings of the study revealed a statistically significant, though modest, association between product knowledge and purchase intentions (R=0.134, p=0.008). Although greater knowledge of organic skin care products increases the likelihood of purchase, a low R2 value (0.018) indicates that product knowledge alone plays a minor role in influencing purchase decision-making. It is worth noting this is consistent with previous studies, which suggest that although such product knowledge provides an important factor, value- or experience-based factors should be included to optimize consumer behavior (Taherparvar et al., 2014). Other factors such as consumer values and past experiences tend to have a significant impact on purchase choices. In the Libyan context, lack of knowledge and limited

information about organic products may explain why knowledge alone is not a strong purchase intention (Groza et al., 2016).

The study also showed a moderate but significant correlation between prior experience and purchase intention ($R=0.301$, $p<0.001$), indicating a lack of prior exposure to skin care products chemical-free has a significant impact on consumer behavior. This finding highlights the importance of consumer loyalty, which means that quality experiences encourage repeat purchases. Satisfying past experiences builds trust and confidence, which is consistent with experiential marketing theory that emphasizes the value of direct, positive interactions to form customer trustworthiness (Kim & Chung, 2011). The strong relationship between prior experience and purchase intention suggests that a positive experience contributes to customer trust, leading to repeat purchases (Bamberg, 2003). Consistent with previous research, this study highlights the importance of providing quality products and good customer service to strengthen customer relationships (Ma et al., 2018).

Moreover, Health attitudes and environmental attitudes were found to positively influence purchase intention. However, health attitudes showed a significant effect ($R=0.332$, $p<0.001$) compared to environmental attitudes ($R=0.193$, $p<0.001$). This finding reflects global consumer trends where people prefer welfare-enhancing products and avoid harmful chemicals (Mazurek-Łopacińska et al., 2022). The preference for organic skin care products stems from concerns about the potential risks associated with traditional synthetic ingredients (Hall et al., 2013). This trend indicates a growing awareness of the importance of health, and encourages consumers to choose safe, natural products (Bhaskaran et al., 2006).

The important role of environmental consciousness highlights the growing awareness among Libyan consumers about the sustainability of their purchases. These results support research showing that consumers develop more environmentally motivated attitudes, preferring products that are marketed as environmentally friendly and sustainable Golob & Kronegger, 2019). The absence of synthetic chemicals and the use of sustainable agricultural practices in organic products attract environmentally conscious consumers (Gracia & de Magistris, 2008). The focus on sustainability is particularly important in the case of Libya, where increasing global concerns about climate change have raised environmental awareness (Benedek & Katalin, 2013).

Additionally, the current study showed that attitude significantly mediates the relationship between product knowledge, prior experiences,

values (health and environmental attitudes), and purchase intention. This is the attitude theory, which means that consumer behavior influences their perception of a product or brand. Quality that is shaped by knowledge and conforms to customer values increases the likelihood of conceptual purchase (Ghazali et al., 2017). The mediating role of attitudes suggests that efforts should also be made to promote positive attitudes to increase consumer awareness or to promote health and environmental standards (Ettinger et al., 2020). For marketers, this highlights the importance of effective communication and a strategic branding strategy. Highlighting the ethical and health benefits of organic products can contribute to positive consumer attitudes, thereby increasing purchase intentions (D'Souza et al., 2006).

The findings of the study provide several implications for the marketing strategies employed in the Libyan organic skincare industry. A comprehensive marketing strategy is suggested, which focuses on consumer education and awareness campaigns that emphasize the health and environmental benefits of organic products (Cheung & To, 2021). Companies need to prioritize delivering quality products and providing positive customer experience to build trust and encourage loyalty. Offering a sample or trial period can be a valuable strategy, providing potential customers with a positive, first-hand experience (Jones, 2017).

Finally, marketers should emphasize the importance of health and environmental considerations in their branding strategies. Integrating these values into brand identity and providing consistent messaging aligns with consumer aspirations, helping to position brands as leaders in the sustainable and ethical beauty market (Seedee, 2018). This approach not only meets current consumer requirements but also positions the brand to appeal to the growing trend of responsible consumption (Mari et al., 2020).

5. Conclusion

This study examined the influence of some important factors such as product knowledge, prior experience, health attitudes, and environmental attitudes on Libyan women's purchasing intentions and attitudes towards products of organic skin care.

The results showed that product knowledge has a small but positive effect on purchase intention, and although knowledge and familiarity can influence consumer behavior, it is not sufficient to make purchases of the decision. This indicates the need to go beyond simple product specifications and raise awareness of the benefits and advantages of organic cosmetics that affect consumers Past experience emerges as a key factor if it guides the buying

process, emphasizing the importance of positive customer interactions and satisfaction. The impact of previous use highlights customer loyalty, while memorable experiences and product quality build trust and encourage repeat purchases.

Health perceptions have a big impact, indicating that consumers want products that are healthy and avoid harmful chemicals. Environmental attitudes are also important, indicating that consumers are increasingly aware of the environmental impact of their purchasing choices. These results suggest that increasing health and environmental consciousness is driving demand for organic products.

On the other hand, attitude is an important mediator, translating product knowledge and value into purchase intentions. Positive attitudes towards organic products, in conjunction with awareness and health and environmental standards, increase the likelihood of purchase. This highlights the need for marketers to inform consumers and encourage positive behavior through brand positioning and emotional connectivity.

Furthermore, the findings provide useful insights for marketers targeting the organic skincare segment in Libya. A comprehensive marketing strategy should focus on consumer education, and positive product experience, and emphasize the ethical values of organic products. Companies need to start educating campaigns about the health and environmental benefits of organic skincare and offer high-quality products that meet consumer expectations. Furthermore, aligning branding strategies with health consciousness and environmental responsibility values will create buying intentions for consumers. By integrating these values into brand identity and messaging, businesses can succeed in the sustainable beauty market.

6. References

Ajayi, S. A., Olaniyi, O. O., Oladoyinbo, T. O., Ajayi, N. D., & Olaniyi, F. G. (2024). *Sustainable Sourcing of Organic Skincare Ingredients: A Critical Analysis of Ethical Concerns and Environmental Implications* (SSRN Scholarly Paper 4691856). Social Science Research Network. https://papers.ssrn.com/abstract=4691856

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Andrés, E., & Martinez, E. (2006). Ecological consumer behavior: An empirical analysis. *International Journal of Consumer Studies*, *31*, 26–33.

Bamberg, S. (2003). How does environmental concern influence specific environmentally related behaviors? A new answer to an old question. *Journal of Environmental Psychology*, *23*(1), 21–32. https://doi.org/10.1016/S0272-4944(02)00078-6

Benedek, A., & Katalin, T.-G. (2013). *A STUDY OF THE FACTORS INFLUENCING THE ENVIRONMENTAL CONSCIOUSNESS OF CONSUMERS*.

Bhaskaran, S., Polonsky, M., Cary, J., & Fernandez, S. (2006). Environmentally sustainable food production and marketing: Opportunity or hype? *British Food Journal*, *108*. https://doi.org/10.1108/00070700610682355

Cheung, M. F. Y., & To, W. M. (2021). The Effect of Consumer Perceptions of the Ethics of Retailers on Purchase Behavior and Word-of-Mouth: The Moderating Role of Ethical Beliefs. *Journal of Business Ethics*, *171*(4), 771–788. https://doi.org/10.1007/s10551-020-04431-6

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE.

D'Souza, C., Taghian, M., & Lamb, P. (2006). An empirical study on the influence of environmental labels on consumers. *Corporate Communications: An International Journal*, *11*, 162–173. https://doi.org/10.1108/13563280610661697

Ettinger, A., Grabner-Kräuter, S., Okazaki, S., & Terlutter, R. (2020). The Desirability of CSR Communication versus Greenhushing in the Hospitality Industry: The Customers' Perspective. *Journal of Travel Research*, *60*, 004728752093008. https://doi.org/10.1177/0047287520930087

Fraenkel, J., Wallen, N., & Hyun, H. (2011). How to Design and Evaluate Research in Education. In *Journal of American Optometric Association* (Vol. 60).

Ghazali, E., Soon, P., Mutum, D., & Nguyen, B. (2017). Health and Cosmetics: Investigating Consumers' Values for Buying Organic Personal Care

Products. *Journal of Retailing and Consumer Services*, *39*, 154–163. https://doi.org/10.1016/j.jretconser.2017.08.002

Gök, İ., & Ulu, E. (2018). Functional foods in Turkey: Marketing, consumer awarenessand regulatory aspects. *Nutrition & Food Science*. https://doi.org/10.1108/NFS-07-2018-0198

Golob, U., & Kronegger, L. (2019). Environmental consciousness of European consumers: A segmentation-based study. *Journal of Cleaner Production*. https://doi.org/10.1016/j.jclepro.2019.02.197

Gracia, A., & de Magistris, T. (2008). The demand for organic foods in the South of Italy: A discrete choice model. *Food Policy*, *33*(5), 386–396. https://doi.org/10.1016/j.foodpol.2007.12.002

Groza, M. D., Locander, D. A., & Howlett, C. H. (2016). Linking thinking styles to sales performance: The importance of creativity and subjective knowledge. *Journal of Business Research*, *69*(10), 4185–4193. https://doi.org/10.1016/j.jbusres.2016.03.006

Gundala, R. R., & Singh, A. (2021). What motivates consumers to buy organic foods? Results of an empirical study in the United States. *PLOS ONE*, *16*(9), e0257288. https://doi.org/10.1371/journal.pone.0257288

Hagger, M. S. (2019). *The Reasoned Action Approach and the Theories of Reasoned Action and Planned Behavior*. Obo. https://www.oxfordbibliographies.com/display/document/obo-9780199828340/obo-9780199828340-0240.xml

Hall, M., Gough, B., & Seymour-Smith, S. (2013). Stake Management in Men's Online Cosmetics Testimonials. *Psychology and Marketing*, *30*, 227–235. https://doi.org/10.1002/mar.20600

Heller, L. J., Skinner, C. S., Tomiyama, A. J., Epel, E. S., Hall, P. A., Allan, J., LaCaille, L., Randall, A. K., Bodenmann, G., Li-Tsang, C. W. P., Sinclair, K., Creek, J., Baumann, L. C., Karel, A., Andersson, G., Hanewinkel, R., Morgenstern, M., Puska, P., Bucks, R. S., … Denollet, J. (2013). Theory of Reasoned Action. In M. D. Gellman & J. R. Turner (Eds.), *Encyclopedia of Behavioral Medicine* (pp. 1964–1967). Springer New York. https://doi.org/10.1007/978-1-4419-1005-9_1619

Jones, G. (2017). *Profits and Sustainability. A History of Green Entrepreneurship*.

Kim, H., & Chung, J. (2011). Consumer purchase intention for organic personal care products. *Journal of Consumer Marketing*, *28*(1), 40–47. https://doi.org/10.1108/07363761111101930

Limbu, Y. B., & Ahamed, A. F. M. J. (2023). What Influences Green Cosmetics Purchase Intention and Behavior? A Systematic Review and Future Research Agenda. *Sustainability*, *15*(15), Article 15. https://doi.org/10.3390/su151511881

Ma, G., Rau, P.-L. P., & Guo, Z. (2018). The Effects of Environmental Awareness and Consumption Value on Green Makeup Product Purchase Intentions. *Psychology*, *09*(07), 1898–1916. https://doi.org/10.4236/psych.2018.97110

Manful, M. E., Ahmed, L., & Barry-Ryan, C. (2024). Cosmetic Formulations from Natural Sources: Safety Considerations and Legislative Frameworks in the European Union. *Cosmetics*, *11*(3), 72. https://doi.org/10.3390/cosmetics11030072

Mari, A., Mandelli, A., & Algesheimer, R. (2020). The Evolution of Marketing in the Context of Voice Commerce: A Managerial Perspective. In F. F.-H. Nah & K. Siau (Eds.), *HCI in Business, Government and Organizations* (Vol. 12204, pp. 405–425). Springer International Publishing. https://doi.org/10.1007/978-3-030-50341-3_32

Martinus, H., & Anggraini, L. (2018). The Effect of Sales Promotion in Social Media on the Students: Purchase Intention of Face Cleaner Water Product. *Humaniora*, *9*(1), 15. https://doi.org/10.21512/humaniora.v9i1.4101

Mazurek-Łopacińska, K., Sobocińska, M., & Krupowicz, J. (2022). Purchase Motives and Factors Shaping Consumer Behaviour on the Ecological Product Market (Poland Case Study). *Sustainability*, *14*(22), 15274. https://doi.org/10.3390/su142215274

Moorman, C., Diehl, K., Brinberg, D., & Kidwell, B. (2004). Subjective Knowledge, Search Locations, and Consumer Choice. *Journal of Consumer Research*, *31*(3), 673–680. https://doi.org/10.1086/425102

Neuman, W. L. (2013). *Social Research Methods: Qualitative and Quantitative Approaches*. Pearson Education.

Nisson, C., & Earl, A. (2020). The Theories of Reasoned Action and Planned Behavior. In K. Sweeny, M. L. Robbins, & L. M. Cohen (Eds.), *The Wiley Encyclopedia of Health Psychology* (1st ed., pp. 755–761). Wiley. https://doi.org/10.1002/9781119057840.ch129

Park, D.-H., & Kim, S. (2008). The effects of consumer knowledge on message processing of electronic word-of-mouth via online consumer reviews. *Electronic Commerce Research and Applications*, *7*(4), 399–410. https://doi.org/10.1016/j.elerap.2007.12.001

Pudaruth, S., Juwaheer, T. D., & Seewoo, Y. D. (2015). Gender-based differences in understanding the purchasing patterns of eco-friendly cosmetics and beauty care products in Mauritius: A study of female customers. *Social Responsibility Journal*, *11*(1), 179–198. https://doi.org/10.1108/SRJ-04-2013-0049

Sasounian, R., Martinez, R. M., Lopes, A. M., Giarolla, J., Rosado, C., Magalhães, W. V., Velasco, M. V. R., & Baby, A. R. (2024). Innovative Ap-

proaches to an Eco-Friendly Cosmetic Industry: A Review of Sustainable Ingredients. *Clean Technologies*, *6*(1), 176–198. https://doi.org/10.3390/cleantechnol6010011

Seedee, R. (2018). CONSUMERS' PURCHASE INTENSION FOR ORGANIC FOODS IN THAILAND. *Journal of Graduate Studies Valaya Alongkorn Rajabhat University*, *12*(3), Article 3.

Su, Y., Khaskheli, A., Raza, S. A., & Yousufi, S. Q. (2022). How health consciousness and social consciousness affect young consumers purchase intention towards organic foods. *Management of Environmental Quality: An International Journal*, *33*(5), 1249–1270. https://doi.org/10.1108/MEQ-12-2021-0279

Sutisna, F., & Handra, T. (2022). Theory of Planned Behavior Influences Online Shopping Behavior. *APTISI Transactions on Management (ATM)*, *6*(1), 52–61. https://doi.org/10.33050/atm.v6i1.1691

Taherparvar, N., Esmaeilpour, R., & Dostar, M. (2014). Customer knowledge management, innovation capability and business performance: A case study of the banking industry. *Journal of Knowledge Management*, *18*(3), 591–610. https://doi.org/10.1108/JKM-11-2013-0446

Wojciechowska-Solis, J., & Barska, A. (2021). Exploring the Preferences of Consumers' Organic Products in Aspects of Sustainable Consumption: The Case of the Polish Consumer. *Agriculture*, *11*, 138. https://doi.org/10.3390/agriculture11020138