Exploring Ethical Consumer Behavior: A Comprehensive Study Using the Ethically Minded Consumer Behavior-Scale (EMCB) among Adult Consumers

Abstract

This research assesses how adult consumers perceive and behave concerning ethical practices, aiming to comprehend the obstacles that hinder ethical and sustainable consumption. Employing a modified version of the Theory of Planned Behavior (TPB) alongside the Ethically Minded Consumer Behavior-Scale (EMCB), a survey was conducted with 372 participants from Germany to reveal and compare the factors influencing ethical consumption, including both determinants and barriers. The results indicate positive correlations between attitudes toward ethical consumption, ethical obligation, self-identity, and the intention to engage in ethical consumption, while this intention is negatively associated with price. Additionally, the study validates the explanatory power of the modified TPB within the EMCB context. Understanding the drivers and hindrances of ethical consumption is crucial for companies and decision-makers, allowing them to prioritize these factors and refine strategies for promoting ethical consumption. This insight aids marketers in tailoring campaigns to reach this specific market effectively. Given the growing significance of ethical and sustainable consumption, this research provides valuable insights into the motivations and constraints shaping consumer behavior in this domain, contributing to both theoretical understanding and managerial decision-making for those targeting this consumer segment.

Keywords: Ethical consumption, Ethically minded consumer, Ethically minded consumer behavior scale, Theory of planned behavior, Attitude-behavior gap.

1 Introduction

The obvious impact of human behavior on the ecosystem and the repercussions of unsustainable environmental consumption habits are increasingly evident (Ogiemwonyi, 2022). A growing awareness of individual actions and heightened consciousness of social and ecological consequences have garnered scholarly attention toward producer responsibility (Le et al., 2022; Paul et al., 2016; ShabbirHusain, 2022; Shaw & Clarke, 1998). This surge in significance has prompted research into Corporate Social Responsibility (CSR) measures (Schudak et al., 2014) and stimulated the adoption of cause-related marketing campaigns aimed at promoting ethical behavior (Christofi et al., 2018; Duarte & Silva, 2018; Silva et al., 2019; Silva & Martins, 2017). The importance of ethical consumption is on the rise (Djafarova & Foots, 2022; Wiederhold & Martinez, 2018), and it is poised to become a global priority, reflected in its inclusion in the Sustainable Development Goals proposed by the United Nations (UN) to ensure ethical consumption and production patterns (United Nations, 2019). Statistical data across Europe underscores the growth of ethical movements, particularly in the United Kingdom (UK) and Germany, where shifts toward more ethical choices, especially among the younger demographic, are discernible (Ethical Consumer, 2018; Handelsdaten, 2019).

Research indicates a strong correlation between the decision-making process of environmentally conscious consumers and the intention to adopt politically ethical behavior (Tomsa et al., 2021). Yet, a gap exists in understanding the factors influencing ethical consumption behavior, given the lack of consensus on the measurement of antecedents, barriers, and motivations. Nonetheless, the influence of both internal and external elements is evident in ethical consumer behavior (Wiederhold & Martinez, 2018). To comprehensively explore and assess this phenomenon among adults, this study employs the Ethically Minded Consumer Behavior Scale (EMCB) by Sudbury-Riley and Kohlbacher (2016) and the Theory of Planned Behavior (TPB) by Ajzen (1985), along with its extension proposed by Shaw et al. (2000), to better understand consumers' willingness to adopt ethical consumption behavior. The primary objective is to gain insights into consumer attitudes and perceptions regarding ethical consumption behavior.

The social relevance and growth of ethical consumption make it an increasingly important area of interest for scholars and managers. Consequently, this study sheds light on a phenomenon with limited existing knowledge by analyzing how the TPB predicts ethical behavior based on the EMCB scale and identifying specific barriers that may influence behavioral intention. The following research questions address these issues: (RQ. 1) What are adults' attitudes and perceptions regarding the purchase intention (TPB) of ethical alternatives?; (RQ. 2) To what extent is the TPB (through BI) related to the EMCB?; (RQ. 3) What barriers influence the BI to consume more ethically?

2 Ethical Consumption

A unanimous definition of "ethical consumption" and "ethical consumerism" remains elusive due to the inherent challenge of encapsulating the diversity and interdisciplinary nature of this topic (Carrington

et al., 2010; Carrigan et al., 2004). Approximately 25 years ago, the concept predominantly focused on environmental issues, but it has since evolved to encompass a wide array of ethical concerns (Devinney et al., 2006). These concerns include Corporate Social Responsibility (CSR), production conditions, product origin (Toti & Moulins, 2016), issues in developing countries (Shaw et al., 2000), social injustice, human rights (Newholm & Shaw, 2007), and a general awareness of the impact of purchasing choices (Chatterjee et al., 2022; Harrison et al., 2005). The existence of various related terms, such as conscious consumption (Szmigin et al., 2009), consumer social responsibility (Devinney et al., 2010), and socially responsible consumption (Anderson & Cunningham, 1972), underscores the intricate nature of the concept. The current study defines "ethical consumerism" as conscious and intentional consumption decisions grounded in personal and moral values (Crane & Matten, 2004).

Despite the societal importance of this topic, ethical consumer behavior as a research subject is relatively rare and inconsistent. Nonetheless, there has been a notable increase in research in this area (Bray et al., 2011). While several studies have explored ethical purchase decision-making and its complexities (Casais & Faria, 2022; Hassan et al., 2022; Kossmann & Gómez-Suárez, 2018; Shaw & Newholm, 2002), a comprehensive understanding of ethical consumer behavior and its measures has been largely absent in prior research (Papaoikonomou et al., 2011b; Shaw et al., 2000). Recognizing that studies often focus exclusively on either environmental or social causes, Papaoikonomou et al. (2011b, p. 215) advocate for "going beyond the narrow examination of specific ethical projects" and instead suggest observing the "ethical consumer experience in its totality." In alignment with this perspective, the present study adopts a holistic approach by combining both behavioral theories and a specific consumer behavior scale to comprehensively assess the phenomenon.

2.1 Measurement of Ethical Consumption Behavior

Measuring the significance of ethical attributes solely through attitudinal scales may be deemed unreliable (Shaw et al., 2000; Sudbury-Riley & Kohlbacher, 2016). Additionally, ethical intentions often fail to translate into actual ethical purchasing behavior (Auger et al., 2007; Belk et al., 2005), leading to a phenomenon where ethically concerned consumers may not align their actions with their declared ethical concerns, a phenomenon known as the 'ethical purchasing gap' (Osburg et al., 2019) or more broadly as the "attitude-behavior gap" or "attitude-intention-behavior gap" in the literature (Carrington et al., 2010; Boulstridge & Carrigan, 2000).

Despite expressing ethical intentions, consumers may prioritize other factors such as price, value, quality, and brand (Boulstridge & Carrigan, 2000; Carrigan & Attalla, 2001; Rasool et al., 2020). Recognizing this gap between intention and behavior, Pelsmacker et al. (2005a) advocate for focusing on actual purchasing behavior in assessing ethical activities, a perspective that remains relatively uncommon (Sudbury-Riley & Kohlbacher, 2016), with intentions and attitudes, or a combination of both, being predominantly used in research (Carrington et al., 2010).

The Socially Responsible Consumer Behavior (SRCB) scale by Roberts (1995) is a scale that adopts

a broader perspective, aiming to measure actual consumer behavior. However, scholars question its validity in contemporary contexts due to significant changes in ethical understanding since its development, leading to concerns about outdated items (Sudbury-Riley & Kohlbacher, 2016). In response to these limitations, the authors have modified the scale, introducing the "Ethically Minded Consumer Behavior" (EMCB) scale, which encompasses a spectrum of ethically-minded consumption choices and better aligns with current ideas of ethical consumption (Sudbury-Riley & Kohlbacher, 2016).

2.2 The Modified Theory of Planned Behavior

The Theory of Planned Behavior (TPB) model, developed by Ajzen in 1985, is widely acknowledged as the most robust attitude-behavior model for comprehending consumers' decision-making processes (Chatzidakis et al., 2016; Silva & Silva, 2012; Wang et al., 2022). It is frequently employed to elucidate ethical consumption patterns (Hiller & Woodall, 2019; Hosta & Zabkar, 2021). However, its predictive ability has been questioned, with a notable portion of the intention remaining unexplained (Ozcaglar-Toulouse et al., 2006). To enhance the applicability to ethical consumption, suggestions have been made to incorporate a more social orientation (Shaw & Clarke, 1999). Consequently, a measure reflecting ethical concern, namely ethical obligation (EO), was recently introduced by Hosta and Zabkar (2021), along with self-identity (SI), proposed by Shaw et al. (2000). This modification has been shown to be significant in explaining consumers' behavioral intentions (BI) regarding ethical consumption, forming the basis for this research.

The attitude towards the behavior (AT) is a pivotal factor influencing the ethical decision-making process, with a substantial impact on engagement in ethical activities and the intention to behave ethically (Shaw et al., 2007; Ajzen & Fishbein, 1980). Le and Kieu (2019) corroborate these findings, affirming the influence of AT on all dimensions of the Ethically Minded Consumer Behavior (EMCB) scale.

According to the TPB, the second determinant of BI is the subjective norm (SN). Although previous research has found that SN is the weakest predictor of BI among the components of the TPB (e.g., Armitage and Conner, 2001), the construct is still positively and significantly related to BI (Ajzen, 1991; Fielding et al., 2008). Consequently, it should be included in the research model.

Perceived behavioral control (PBC), according to the TPB, refers to the perceived "ease or difficulty of performing the behavior" (Ajzen, 1991, p. 188) and reflects the individual's perception of their ability to engage in ethical consumption behavior. A high degree of PBC corresponds to a high degree of belief and confidence in the individual's ability to enact the desired behavior, influencing BI (Ajzen, 1991).

Research suggests adding a measure reflecting the ethical standards of individuals (Hosta & Zabkar, 2021), as previous studies have shown that ethical consumers exhibit a sense of responsibility and obligation for others (Kautish et al., 2019; Shaw & Clarke, 1999). Accordingly, ethical obligation (EO) was initially included in the TPB by Shaw et al. (2000) to address the individual's perception of what is

morally or ethically correct or incorrect. This variable was a meaningful addition to the TPB in explaining ethical behavior, such as the purchase intention to buy fair trade (Ozcaglar-Toulouse et al., 2006) or organic foods (Arvola et al., 2008).

Another factor extending the original TPB model is self-identity (SI). Self-identity is "the pertinent part of an individual's self that relates to a particular behavior. It reflects the extent to which an actor sees him or herself as fulfilling the criteria for any societal role" (Conner & Armitage, 2006, p. 1444). The integration of the concept into TPB is justified by the fact that ethical consumers identify themselves with ethical issues, and this concern is inevitably incorporated into their self-identity (Hanel & Basil, 2023; Shaw et al., 2000). Furthermore, studies have shown SI to be a significant determinant of BI (Fielding et al., 2008; Shaw et al., 2000).

A central factor in the TPB is the individual's behavioral intention, which translates into the probability of engaging in ethical consumption in this study. In this context, BI is additionally a function of the determinants EO and SI, besides the original variables (AT, SN, PBC), and is subsequently assumed to be the main predictor of actual behavior (Ajzen, 1991). Thus, an enhanced BI is expected to relate to an increased probability of carrying out the behavior (Ajzen, 1991). Drawing from the preceding theoretical discussion, the following hypotheses are proposed:

H_{01}: Attitude (AT) is positively related to the intention to engage in ethical consumption.

$H_{02:}$ Subjective norm (SN) positively relates to the intention to engage in ethical consumption.

H_{03}: Perceived behavioral control (PBC) is positively related to the intention to engage in ethical consumption.

H_{04}: Ethical obligation (EO) is positively related to the intention to engage in ethical consumption.

H_{05}: Self-identity (SI) is positively related to the intention to engage in ethical consumption.

2.3 Barriers to Ethical Consumption

On the contrary, it is also posited that numerous factors may exert a negative influence on Behavioral Intention (BI) and actual consumer behavior, acting as barriers to impede consumers from intending and practicing ethical consumption (Bray et al., 2011; Kidwell & Jewell, 2003; Robichaud & Yu, 2022). Bray et al. (2011) highlight the scarcity of comprehensive studies specifically addressing purchase inhibitors within the realm of ethical consumption. Notably, within the ethical purchasing decision landscape, the sub-theme of price emerges as one of the most prominent factors (Chatzopoulou & de Kiewiet, 2020). Among others, Falcão and Roseira (2022) point out the perceived high(er) prices of ethical alternatives and the reluctance to pay more. Several authors, such as Boulstridge and Carrigan (2000) or Padel and Foster (2005), have concurred that price can be deemed the most significant barrier in selecting ethical products. Constraints stemming from limited budgets and substantially higher prices for ethical products stand out as two primary reasons ethical criteria might not dominate the decision-making process (Carrigan & Attalla, 2001; Papaoikonomou et al., 2011a). Moreover, this factor contributes to the gap between attitude and behavior (Pelsmacker et al., 2005a).

The dearth of availability of ethical alternatives or stores is also identified as a barrier to ethical consumption (Papaoikonomou et al., 2011a). In conjunction with this barrier, other authors emphasize that a lack of variety hampers the purchase of ethical products, such as organic or Fairtrade items (Pelsmacker et al., 2005b; Shaw et al., 2000). Merely perceiving that ethical products may be less available appears to constrain consumers' intentions, even among those with a positive attitude toward ethical consumption (Vermeir & Verbeke, 2006).

Information-related issues pose a significant barrier to ethical purchasing, leading to an extensive body of literature highlighting three distinct aspects. The first concerns the inadequacy of information (Carrigan & Attalla, 2001), and the second revolves around the dearth of quality information and the challenges in considering and categorizing credible and trustworthy information. This deficiency negatively impacts attitude and purchase intention (Pelsmacker & Janssens, 2007).

Based on the discussion, to illuminate the impact of the barriers on engagement in ethical consumption, the following hypotheses are proposed:

H_{06}: A higher price is negatively related to the ethically minded behavioral intention.

H_{07}: A lack of availability is negatively related to the ethically minded behavioral intention.

H_{08}: A lack of adequate information is negatively related to the ethically minded behavioral intention.

2.4 Ethically Minded Consumer Behavior (EMCB) scale

Considering the previously noted incongruity between attitudes and behavior, Sudbury-Riley and Kohlbacher (2016) advocate using the Ethically Minded Consumer Behavior Scale (EMCB) to gauge consumers' genuine ethical consumption behavior. The EMCB scale, tailored to contemporary notions, serves as an instrument that comprehensively integrates various ethical consumer choices, encompassing both environmental and social aspects, thereby offering a holistic understanding of ethical consumption. The scale encompasses diverse dimensions, including the preference for environmentally friendly products over alternatives (Ecobuy), abstaining from purchasing environmentally harmful products (Ecoboycott), engagement in recycling (Recycle), refraining from purchasing products due to social issues (CSRboycott), and willingness to spend more on ethical products (Paymore).

The appropriateness of the EMCB framework was initially validated by Sudbury-Riley and Kohlbacher (2016) across diverse countries, including the UK, Germany, Hungary, and Japan. Le and Kieu (2019) recently applied the EMCB scale in the Vietnamese context to evaluate various dimensions of consumers' ethical behavior. In their study, Le and Kieu (2019) augmented the EMCB scale with cultural and personal values, along with two components of the Theory of Planned Behavior (TPB), namely Attitude (AT) and Subjective Norm (SN). Drawing from these studies, the proposition is made that:

H_{09}: A strong behavioral intention towards ethical consumption positively relates to EMCB.

The model and the underlying hypothesized relationships are displayed in Figure 1.

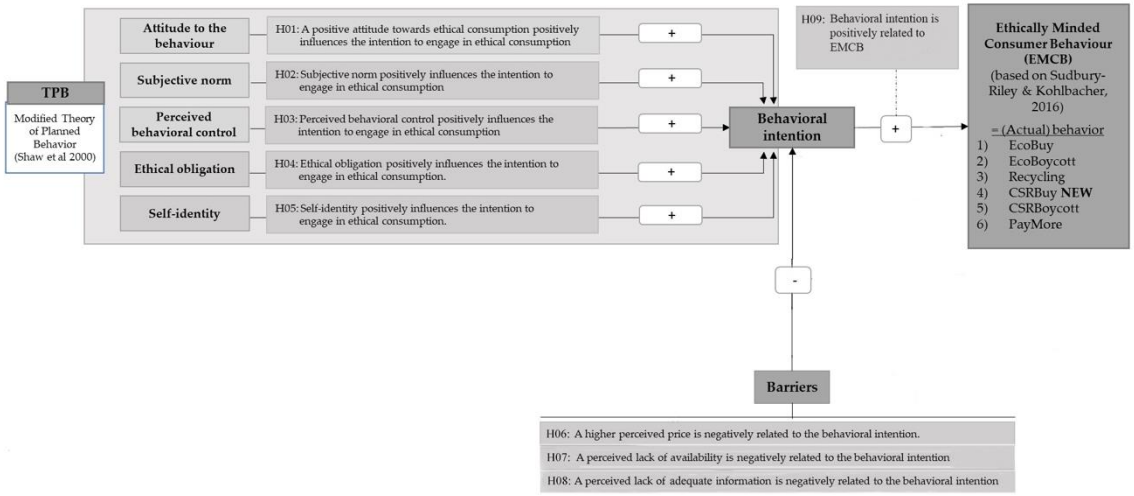

Fig. 1 Research model and hypothesis

3 Methods

3.1 *Measures*

A thorough review of previous research was undertaken to compile a comprehensive list of measures. The ultimate compilation of construct measurement scales with the sources from which they were adapted is detailed in the appendix.

All items on the Ethically Minded Consumer Behavior (EMCB) were presented, and a sixth construct (CSRbuy) was introduced, focusing on conscious purchasing influenced by ethical considerations regarding a company's Corporate Social Responsibility (CSR) activities. This construct involves choosing options with the least negative social impacts over alternatives and supplements the original five concepts: Ecobuy, Ecoboycott, Recycle, CSRboycott, and willingness to pay more.

Subsequently, respondents were tasked with answering questions related to the six dimensions (AT, SN, PBC, SI, EO, and BI) of the expanded version of the Theory of Planned Behavior developed by Shaw et al. (2000). To unveil the perceived importance and influence of potential barriers, respondents were also queried about the extent to which a higher price, the availability of products and stores, and the adequacy of information negatively impact their ethical consumption.

A 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree), with two anchors indicating a level of agreement, was employed to measure the determinants. For the outcome variable, EMCB, a 5-point Likert scale was used (Dawes, 2008). The use of two different scales within the questionnaire serves as a procedural method to mitigate potential common method bias.

3.2 *Sampling procedure*

A quantitative approach based on data from a questionnaire was employed to address the research problem and objectives. Data were collected from 521 German young adults in January and February 2023 using a snowball sampling technique. However, 149 respondents were deemed ineligible due to numerous missing values, resulting in a final usable sample of 372 participants (Mean Age = 25.86, Standard Deviation = 5.65).

Table 1 presents descriptive statistics for the sample. Following participants' explicit consent to the General Data Protection Regulation (GDPR) and their voluntary agreement to partake in the study, in adherence to the ethical standards of the 1964 Declaration of Helsinki, participants were informed of their right to refuse participation or withdraw consent at any time without consequence. Background variables, encompassing questions about ethical purchasing behavior, were incorporated to offer additional context and enhance understanding of the sample characteristics concerning their self-reported extent of ethical consumption. To prevent ambiguous interpretations, a clear definition of "ethical consumption" was provided, emphasizing it as the purchase of a product or service driven by ethical beliefs regarding issues such as human rights, working conditions, animal and environmental well-being, and social justice, including preferences for fair trade, local, organic, socially, or environmentally friendly goods.

A pre-survey test was conducted to ensure data reliability, and continuous monitoring of data entry was implemented to ensure data integrity, following the guidance of Malhotra et al. (2017).

Table 1 Demographic Characteristics of the Sample

Demographics		Number of responses	Percentage of responses
Age	18-23	119	39.0%
	24-29	210	43.8%
	30-35	34	9.8%
	≥36	30	7.4%
Gender	Female	271	72.8%
	Male	100	26.9%
	Other	1	0.3%
Education	Bachelor	157	42.2%
	Master	189	50.8%
	Doctorate	26	7.0%
Ethical purchases	Never	19	5.1%
	Rarely	139	37.4%
	Monthly	64	17.2%
	Weekly	76	20.4%
	Always	9	2.4%

3.3 *Common method bias*

Following data collection, a statistical test using the post hoc Harman single-factor approach was conducted to ascertain that the data variance was not predominantly explained by a single factor (Babin et al., 2016). The ten factors were consolidated into a single factor for analysis. Examination of the unrotated factor solution revealed that a one-factor solution explained 30.377 percent of the variance, falling below the 50 percent threshold suggested by Podsakoff et al. (2003). This outcome suggests that Common Method Bias (CMB) is unlikely to be a significant concern for this study, as most of the variance is not attributed to a single factor.

3.4 *Data analysis*

Using Partial Least Square Structural Equation Modelling (PLS-SEM) as outlined by Hair et al. (2017), the estimation of both measurement and structural models was conducted using SmartPLS 3.2.8 software (Henseler et al., 2015). The choice of PLS-SEM is justified on several grounds. Firstly, compared to covariance-based SEM, PLS-SEM is well-suited for predictive modeling as it estimates path model relationships that maximize the R2 values of constructs (Hair et al., 2017). Secondly, PLS-

SEM demonstrates superior capabilities when dealing with smaller sample sizes (Hair et al., 2019). Lastly, the Heterotrait-Monotrait criterion is recommended for testing discriminant validity (Hair et al., 2019).

4 Results

4.1 *Measurement scales' psychometric properties*

In the initial phase, we processed the indicator loading values for the proposed model. Composite reliability (CR) and average variance extracted (AVE) were employed to assess reliability and convergent validity, respectively, as recommended by Fornell and Larcker (1981). Discriminant validity was evaluated using the Heterotrait–Monotrait Ratio (HTMT) due to its superior performance compared to traditional methods (Henseler et al., 2015). Indicator reliability was assessed using standardized loadings (lambda), following the approach of Hair et al. (2017). The established thresholds for CR, AVE, and lambda were 0.7, 0.5, and 0.7, respectively. The HTMT criterion used a threshold of 0.90 in this study (Henseler et al., 2016).

As indicated in Table 2, our findings at this stage reveal that all indicators surpass the threshold set at 0.6 by Hair (2017). Moreover, the minimum values for composite reliability, meeting the criterion of 0.7 as suggested by Fornell and Larcker (1981), along with Cronbach's Alpha (0.7) and Average Variance Extracted (AVE, exceeding 0.5), demonstrate convergent validity. This outcome provides conclusive evidence of the model's satisfactory construct validity, indicating the extent to which the measured items reflect the latent theoretical construct.

Table 2 Loadings, reliability, and validity

	Items	**Mean (SD)**	**Loadings**	**Cronbach's Alpha**	**Composite Reliability**	**AVE**
Attitude				0.814	0.890	0.730
	AT_01	6.17 (1.04)	0.813			
	AT_02	6.31 (1.08)	0.876			
	AT_03	6.50 (1.00)	0.873			
Behavioral Intention				0.958	0.973	0.922
	BI_01	5.77 (1.15)	0.947			
	BI_02	5.79 (1.17)	0.971			
	BI_03	5.79 (1.17)	0.961			
Perceived Behavioral Control				0.744	0.834	0.630
	PBC_01	3.99 (1.44)	0.902			
	PBC_02	5.21 (1.50)	0.676			
	PBC_03	4.85 (1.39)	0.787			
Subjective Norm				0.765	0.864	0.679
	SN_01	4.91 (1.23)	0.863			
	SN_02	4.97 (1.22)	0.853			
	SN_03	5.96 (1.08)	0.753			
Ethical obligation				0.864	0.917	0.787

	EO_01	5.57 (1.34)	0.923			
	EO_02	5.65 (1.24)	0.923			
	EO_03	4.54 (1.48)	0.810			
Self-identity				0.802	0.883	0.717
	SI_01	5.55 (1.19)	0.857			
	SI_02	4.55 (1.39)	0.807			
	SI_03	5.81 (1.16)	0.875			
Ethically Minded Consumer Behavior				0.832	0.876	0.545
	EM_01	3.37 (0.97)	0.780			
	EM_02	3.47 (0.93)	0.688			
	EM_03	3.62 (0.90)	0.652			
	EM_04	3.69 (0.90)	0.813			
	EM_05	3.69 (0.94)	0.743			
	EM_06	3.40 (1.00)	0.735			
Availability and Variety				0.815	0.888	0.725
	AV_01	3.06 (1.51)	0.822			
	AV_02	3.52 (1.56)	0.861			
	AV_03	3.47 (1.71)	0.870			
Information adequacy				0.863	0.908	0.769
	IA_01	2.99 (1.74)	0.764			
	IA_02	3.36 (1.69)	0.937			
	IA_03	3.48 (1.75)	0.920			
Perceived Premium Price	PPP_01	2.65 (1.63)	1.000	1.000	1.000	1.000

Lastly, we examined the distinctions between model composites using discriminant validity analysis (Hair et al., 2017). To compute discriminant validity, we compared the square root of the AVE for each composite with the correlations between different composites in the model, following the approach of Fornell and Larcker (1981). All AVE values surpass the corresponding inter-composite correlational values, as illustrated in Table 3.

Table 3 Fornell-Larcker Criteria

	Behavioral Intention	**EMCB**	**Ethical obligation**	**PBC**	**SN**	**Self-identity**	**Attitude**	**Availability**	**Info**	**Price**
Behavioral Intention	*0.960*									
EMCB	0.556	*0.736*								
Ethical obligation	0.743	0.618	*0.887*							
Perceived Behavioral Control	0.274	0.304	0.297	*0.794*						
Subjective norm	0.386	0.355	0.406	0.276	*0.824*					
Self-identity	0.725	0.649	0.680	0.333	0.417	*0.847*				
Attitude	0.534	0.357	0.550	0.222	0.375	0.445	*0.854*			
Availability	-0.130	-0.094	-0.163	0.023	-0.007	-0.106	-0.126	*0.851*		
Information	-0.059	-0.110	-0.095	0.041	-0.067	-0.090	-0.019	0.445	*0.877*	
Price	-0.080	0.033	0.006	0.158	-0.025	-0.042	-0.031	0.324	0.248	*1.000*

Note: Values in italics are the square root of AVE

Discriminant validity was evaluated using the Heterotrait-Monotrait Ratio of correlations (Henseler et al., 2015), with values consistently falling below the 0.90 threshold, as detailed in Table 4. Consequently, these findings indicate a reliable level of discriminant validity for all constructs.

Table 4 HTMT Ratio

	Behavioral Intention	**EMCB**	**Ethical obligation**	**PBC**	**SN**	**Self-identity**	**Attitude**	**Availability**	**Info**	**Price**
Behavioral Intention										
EMCB	0.609									
Ethical obligation	0.808	0.718								
Perceived Behavioral Control	0.269	0.316	0.354							
Subjective norm	0.446	0.427	0.491	0.328						
Self-identity	0.825	0.789	0.809	0.374	0.527					
Attitude	0.604	0.421	0.646	0.282	0.483	0.540				
Availability	0.142	0.110	0.187	0.071	0.049	0.136	0.147			
Information	0.056	0.132	0.099	0.088	0.077	0.098	0.070	0.585		
Price	0.082	0.046	0.058	0.162	0.076	0.102	0.036	0.379	0.311	

Multicollinearity was evaluated using the variance inflation factor (VIF) value. Collinearity concerns emerge when the Variance Inflation Factor (VIF) exceeds a value of 10.00 (Hair, JR. et al., 2017). In

our study, no indications of collinearity issues were identified, as the VIF values remained well below the specified threshold.

4.2 *Structural model analysis*

The hypotheses underwent testing through 5000 bootstrap resamples. As outlined in Table 5, the findings support H01, revealing a positive association between attitude toward ethical consumption and behavioral intention ($\gamma = 0.556$, $p < 0.001$). However, subjective norm and perceived behavioral control ($\gamma = 0.011$, $p = 0.786$ and $\gamma = 0.002$, $p = 0.945$, respectively) exhibit no significant relationship with behavioral intention, thus not corroborating H02 and H03. On the other hand, ethical obligation and self-identity display positive connections with behavioral intention ($\gamma = 0.409$, $p < 0.001$ and $\gamma = 0.384$, $p < 0.001$, respectively), aligning with both H04 and H05.

As anticipated, a higher price, among the perceived barriers to ethical consumption, is identified as exerting a negative influence on behavioral intention ($\gamma = -0.072$, $p < 0.05$), confirming H06. However, H07 and H08 find no support, as the availability and variety of ethical alternatives, along with information adequacy, exhibit no significant relationship with behavioral intention ($\gamma = 0.002$, $p = 0.955$; and $\gamma = 0.034$, $p = 0.443$, respectively). Finally, consistent with H09, behavioral intention demonstrates a positive relationship with Ethically Minded Consumer Behavior ($\gamma = 0.556$, $p < 0.001$). The coefficient of determination value (R2) for behavioral intention is 0.661, while EMCB is 0.309, representing a commendable value for behavioral research (Hair et al., 2017). We employed the blindfolding procedure to assess the relevance of exogenous variables to model performance. This technique evaluates each construct's predictive relevance by computing changes in the criterion estimates (Q2) (Hair et al., 2017). Our results from Stone-Geisser's blindfolding technique (Q2) indicate that behavioral intention (Q2 = 0.599) and EMCB (Q2 = 0.160) possess satisfactory predictive relevance, with values significantly exceeding 0 (Thakur, 2018).

Table 5 Results of hypotheses testing

Hypotheses	**Path coefficient**	**CIs (bias corrected)**	**t-Value**	**f^2**	**Support**
H01: Attitude (AT) is positively related to the intention to engage in ethical consumption.	0.132	0.039; 0.223	2.967	0.034	Yes
H02: Subjective norm (SN) positively relates to the intention to engage in ethical consumption.	0.011	-0.065; 0.088	0.272	0.000	No
H03: Perceived behavioral control (PBC) is positively related to the intention to engage in ethical consumption.	0.002	-0.068; 0.062	0.069	0.000	No
H04: Ethical obligation (EO) is positively related to the intention to engage in ethical consumption.	0.409	0.304; 0.514	7.699	0.219	Yes

H05: self-identity (SI) is positively related to the intention to engage in ethical consumption.	0.384	0.301; 0.481	8.415	0.215	Yes
H06: A higher price is negatively related to the ethically minded behavioral intention.	-0.072	-0.131; -0.014	2.358	0.023	Yes
H07: A lack of availability is negatively related to the ethically minded behavioral intention.	0.002	-0.069; 0.085	0.057	0.000	No
H08: A lack of adequate information is negatively related to the ethically minded behavioral intention.	0.034	-0.039; 0.143	0.768	0.000	No
H09: A strong BI towards ethical consumption positively relates to EMCB	0.556	0.454; 0.640	12.027	0.447	Yes

5 Discussion

The findings underscore the multifaceted nature of ethical consumption, influenced by a confluence of internal and external factors shaped by economic, institutional, social, and cultural contexts. The outcomes align with prior studies in diverse settings (Shaw et al., 2007; Sparks & Shepherd, 1992), highlighting the substantial impact of the modified TPB components on Behavioral Intention (BI), with Ethical Obligation (EO) and Self-Identity (SI) emerging as pivotal determinants. The recalibrated significance of Perceived Behavioral Control (PBC) and Subjective Norm (SN), echoing Shaw et al. (2000), implies that the sway of peer influence and perceived capacity to engage in ethical consumption may not be significant factors in determining behavior, warranting further exploration of antecedents to behavioral intention.

Per our expectations, subjective norm was anticipated to be a determinant of behavioral intention. However, as previously mentioned, this proved to be one of the weakest predictors of behavioral intention among the different components of TPB (Armitage & Conner, 2001), a finding we were able to confirm in our sample. This lack of influence may stem from various factors. Firstly, societal norms regarding ethical consumption may vary across different contexts and time periods. It's plausible that these norms have evolved and are now so ingrained that they are taken for granted, resulting in a weaker influence on individual behaviors. Additionally, not all individuals are equally influenced by subjective norms; factors such as personality traits, cultural background, or social identity may moderate the extent to which individuals conform to societal expectations. The diverse nature of our sample population, despite all individuals being German, could contribute to variations in the influence of subjective norms on behavior. Individuals may not perceive ethical consumption norms as particularly relevant to their daily decision-making processes, especially if other factors such as price or convenience take precedence. Consumption decisions are complex and influenced by various factors beyond subjective norms, including personal beliefs, attitudes, past experiences, and situational factors. Subjective norms may be just one of many determinants shaping behavior, and their direct impact may be overshadowed by other influences. Furthermore, individuals may prioritize their personal beliefs and values over societal expectations when making ethical consumption decisions, reflecting the importance of personal

autonomy in decision-making processes.

Additionally, we consider perceived behavioral control (PBC), which reflects an individual's perception of their capability to engage in ethical consumption behavior. Despite the theory anticipating a positive relationship between PBC and the intention to engage in ethical consumption, we found no evidence of such influence in our study. This discrepancy may be attributed to several factors. Firstly, the age and personality traits of our participants may have played a role. Young individuals with established personality traits may be less likely to allow their perceived capability to influence their behavioral intention. Furthermore, the increasing availability of ethical products and growing awareness of ethical consumption may make it easier for individuals to engage in such behavior, diminishing the perceived difficulty of performing it. Economic factors and a wider range of available options may also contribute to the ease of ethical consumption, further reducing the impact of perceived behavioral control on intention.

Notwithstanding limitations, the study affirms the predictive prowess of the extended TPB model for ethical consumption. The inclusion of self-identity and ethical obligation notably enhances the model, aligning with findings by Beldad and Hegner (2018), Shaw et al. (2000), and Shaw and Shiu (2002). The robust impact of self-identity suggests that a strong affiliation with ethical concerns significantly improves the intention to pursue ethical behavior. Similarly, the substantial influence of ethical obligation on intention underscores a sense of responsibility toward others in driving ethical purchases, hinting at the potential role of a culturally shared ethical conscience.

Examining the TPB's explanatory power on actual behavior using the Ethically Minded Consumer Behavior scale (EMCB) reveals a pronounced inclination toward purchasing environmentally friendly (EcoBuy) and recyclable products (Recycle). Ethical obligation particularly influences recyclable processes, reflecting the study by Hosta and Zabkar (2021). Interestingly, EcoBuy may hinge on the price of ethical options, consistent with other studies (Bray et al., 2011; Padel & Foster, 2005; Young et al., 2010), emphasizing the need to enhance economic conditions to foster ethical consumption.

Surprisingly, information scarcity and availability of ethical products do not emerge as substantial constraints on ethical purchases. This result raises questions about the adequacy of information provision and consumer perception of its necessity for ethical product acquisition—a crucial insight for marketers aiming to align information availability with consumer needs in diverse markets.

Contrary to some literature citing the scarcity of ethical alternatives as a barrier (Nicholls & Lee, 2006; Papaoikonomou et al., 2011a; Shaw & Clarke, 1999; Uusitalo & Oksanen, 2004), the current findings suggest no significant impact on behavioral intention, possibly due to evolving ethical markets and increased product availability.

Exploring the intention-behavior relationship using the EMCB scale reveals a positive and significant correlation, supporting the hypothesis that increased behavioral intention relates to actual behavior. However, the existence of an intention-behavior gap, consistent with Carrington et al. (2010) and Carrigan and Attalla's (2001) previous reference, indicates that factors beyond intention contribute to

actual purchasing behavior. This underscores the potential for augmenting the EMCB model with additional variables to enhance its explanatory power.

6 Conclusions and Implications

Having matured amidst the digital revolution, adults exhibit heightened awareness of business activities, yet their relevance to ethical purchasing behavior requires nuanced exploration (Chatzopoulou & De Kiewiet, 2020). This study delves into the distinctive desires, needs, and hindrances of ethical consumption among adults, unraveling their perceptions, attitudes, intentions, and behavior regarding ethical issues. The investigation affirms the positive correlation between the components of the Modified TPB and ethical Behavioral Intention (BI). Notably, the inclusion of ethical obligation and self-identity in the equation is valuable for deciphering ethically oriented behaviors.

Moreover, the augmentation of the Corporate Social Responsibility (CSR) dimension to the established Ethically Minded Consumer Behavior (EMCB) scale demonstrates reliability, offering a meaningful expansion for future research. The examination of barriers hindering ethical consumption aligns with earlier studies in terms of perceived barrier rankings. However, intriguing findings concerning the relationship between barriers and BI necessitate further exploration, as some contradict prior evidence. While sample characteristics may influence these findings, additional investigation is warranted to validate these insights across diverse markets.

The study makes significant contributions to both academic and managerial realms. The theoretical innovation lies in the novel application of the EMCB scale, introducing the concept of CSR-based purchasing (CSRbuy). Additionally, the study enriches existing literature by intertwining and correlating two established scales (EMCB and modified TPB), evaluating their applicability and reliability in a distinct context.

From a managerial perspective, the findings enhance comprehension of ethical consumption, empowering marketers to tailor advertising and marketing campaigns for this consumer trend. This knowledge facilitates the design of more effective strategies tailored to specific markets. In today's consumer landscape, individuals increasingly experience a sense of guilt when consuming products that are harmful to society or the environment, a phenomenon referred to as "ethics and sustainability guilt" by some authors (Martins et al., 2024). Particularly among younger demographics, who are perceived as bearing the brunt of potential societal and environmental damage from unethical and unsustainable behaviors, this guilt is pronounced. Consequently, there is a growing intention among consumers, especially the youth, to opt for products that are ethically sound and sustainable, thereby driving up demand for goods with such attributes.

Given this shift in consumer mindset, it is imperative for companies to align their strategies with the ethical and environmental standards prevalent in contemporary consumer societies (Barbeta-Viñas,2023). To address consumers' guilt associated with non-compliant products, companies are advised to employ messaging that alleviates this guilt and emphasizes environmental and social

sustainability. The proliferation of guilt-free consumption options and narratives has been shown to be effective in this regard (Hayes & Podobsky, 2016; Peloza et al., 2013; Sharma & Paço, 2021).

Understanding the factors that drive ethical consumption behaviors is pivotal for firms seeking to effectively target their markets (Sharma & Paço, 2021). Identifying the specific messaging that prompts consumers to choose ethical products is essential for shaping consumer behavior. Launching products designed to mitigate the negative effects of unethical consumption can also be a viable strategy (Sett, 2020). By addressing the discomfort, ambiguity, and negative emotions linked to unethical behaviours, companies can enhance their appeal to conscientious consumers and contribute to a more sustainable future (Zhang et al., 2023).

Despite these contributions, the study acknowledges certain limitations. The self-administered survey may introduce potential bias, as respondents might portray attitudes and behaviors more positively in alignment with prevailing social norms. Another issue to consider is that due to the sampling technique used and the objective of inquiring young adults, the sample was mainly composed of educated people, and this fact must be considered when assessing the findings. Expanding the study to different countries and using a more diverse sample in terms of education for comparative analysis could augment understanding, and future research might benefit from a qualitative approach for a deeper exploration of the subject. Furthermore, the lack of influence of subjective norms on enacting ethical consumption behaviors suggests a complex interplay of individual, social, and contextual factors shaping consumer decision-making processes. Further research is needed to unpack these dynamics and provide a deeper understanding of the role of subjective norms in ethical consumption behaviors.

In conclusion, understanding the reasons behind the inability to prove the anticipated relationships requires careful consideration of various contextual and theoretical factors. Further research is necessary to address these issues and provide a clearer understanding of the dynamics involved, especially among different generational cohorts and socioeconomic contexts.

Declarations

Competing interests: The authors have no competing interests to declare that are relevant to the content of this article.

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