

SYSTEMATIC REVIEW OF THEORETICAL FRAMEWORKS IN GREEN CONSUMER PURCHASING BEHAVIOR RESEARCH

Marcin ŻEMIGALA^{a}, Agnieszka WIŚNIEWSKA^a, Katarzyna LICZMAŃSKA-KOPCEWICZ^b
Zoritza KIREŚIEWA^c, Hannamaija TUOVILA^d*

^a University of Warsaw, Poland

^b Nicolaus Copernicus University in Torun, Poland

^c Ecologic Institute, Germany

^d VTT Technical Research Centre of Finland, Finland

ABSTRACT

This study systematically investigates how green consumer purchasing behavior (GCPB) is conceptualized and studied through theoretical frameworks, across non-food (nF) market contexts and via research methods that enable their application. Employing the Theory-Context-Methodology (TCM) framework, the review identifies dominant and emerging theories, their empirical functions, market-level applications, and methodological configurations. The analysis is based on a refined dataset of 199 empirical studies (1990–2023) indexed in Scopus and aligned with the GCPB-nF domain. Findings indicate that the Theory of Planned Behavior (TPB) and Willingness to Pay (WTP) are the most frequently employed frameworks. Theoretical models are applied either (1) as structural foundations for hypothesis testing, (2) as sources of constructs guiding variable selection, or (3) as conceptual scaffolding for broader model development. TPB and WTP are particularly versatile and often appear in hybrid configurations, whereas many other frameworks are only marginally represented. Application intensity varies substantially across product contexts, with green products, clothing, and electronics being the most researched. Methodologically, survey-based quantitative designs dominate, particularly in studies grounded in TPB and Theory of Reasoned Action (TRA), while experimental designs are primarily used with WTP. Qualitative and mixed-methods approaches are notably underrepresented. These patterns reveal significant research gaps, especially in theory-method and theory-context integration. This study contributes to the cumulative development of the GCPB-nF field and offers a foundation for the notably underexplored area of bio-based product purchasing, by mapping theoretical applications and highlighting underutilized theory-context-method configurations.

KEYWORDS: *green consumer behavior, literature review, sustainable consumption, TPB, WTP*

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1. INTRODUCTION

Green consumer purchasing behavior (GCPB) has become a central topic in sustainability research, reflecting its growing importance for environmental policy, corporate social responsibility, and consumer studies. This applies to topics related to global management issues, as well as those related to future threats and geopolitical factors, particularly dynamic area within this field concerns non-food products, which are closely linked to the expanding category of bio-based goods, such as sustainable packaging, textiles, cosmetics, and household appliances. Green products have attracted

*Corresponding author. E-mail address: mzemigala@wz.uw.edu.pl

increasing attention in both academic literature and policy agendas all over the world (e.g. China (Chen et al., 2021), United States (Rolling et al., 2021), India (Punyatoya, 2015), Pakistan (Khan & Mohsin, 2017), Malaysia (Goh & Balaji, 2016), Italy (Notaro, Lovera, & Paletto, 2022), Germany (Petersen, Hörisch, & Jacobs, 2021), United Kingdom (Darnall, Ji, & Vázquez-Brust, 2018), France (Bernard, Bertrandias, & Elgaaied-Gambier, 2015), etc.). As interest in this segment intensifies, it is essential to understand which theoretical frameworks and research methods are employed in the field and to identify existing gaps in the literature.

Research on GCPB has drawn upon various theoretical models and conceptual frameworks (Groening et al., 2018), yet there remains a lack of a coherent synthesis showing how these approaches are applied across different contexts, particularly in the non-food market. Previous literature reviews have focused on selected aspects of green consumption: Sharma et al. (2023) examined psychological and demographic determinants, Groening et al. (2018) compiled consumer-level theories, and Yusoff et al. (2023) categorized thematic influence factors such as motivation and perception. However, most of these studies overlook the interconnections among theoretical frameworks, empirical contexts, and research methodologies, especially with respect to green purchasing of non-food products (GCPB-nF). Furthermore, the bio-based product segment, which often overlaps with non-food offerings, remains underexplored despite its strategic importance for the circular economy and environmental policy objectives.

This article addresses that gap by applying the Theory–Context–Methodology (TCM) framework (Paul, Parthasarathy, & Gupta, 2017) in a systematic review of empirical research on GCPB-nF. This approach enables a structured analysis of three dimensions: the dominant theoretical foundations in the literature, their methodological operationalization, and the market contexts in which they are applied.

The contribution of this review is twofold. First, it provides a diagnostic map of the current research landscape by identifying under- and over-represented combinations of theories, contexts, and methods. Second, it proposes a research roadmap that highlights neglected theoretical perspectives, product categories, and methodological approaches. By doing so, this review not only consolidates existing knowledge but also supports the development of a theory-driven, context-sensitive research agenda for sustainable consumption, with particular emphasis on the rapidly growing domain of non-food green products.

The structure of the paper is as follows. Section 2 describes the research procedure and justifies the use of the TCM framework for analyzing the GCPB-nF literature. Section 3 presents the main findings, organized according to the three TCM dimensions. Section 4 offers a synthesis of the key insights and suggests directions for future research.

2. RESEARCH PROCEDURE

The focal domain of analysis in this study is defined as GCPB-nF. Accordingly, the main research question guiding the study is formulated as follows: *How is GCPB-nF conceptualized and studied through theoretical frameworks, across market contexts and by means of the research methods that enable their application?*. To structure the research process and ensure analytical consistency, the main question was decomposed into three specific research questions, following the logic of the Theory-Context-Method (TCM) framework:

RQ1: What are the theoretical frameworks utilized in research in the field of GCPB-nF?

RQ2: In which market context are the main theoretical frameworks applied?

RQ3: Which research methods are utilised under the main theoretical frameworks?

The TCM framework, developed by Paul et al. (2017) provides a structured approach to systematizing literature by jointly examining the theoretical foundations (T), the market or environmental context (C), and the research methods (M) used in a given domain. Unlike conventional reviews that often emphasize only one of these dimensions, TCM facilitates integrated

mapping of how theories are applied, in what empirical settings, and through which methodological designs. This holistic perspective enhances the explanatory power of the review by uncovering patterns, imbalances, and gaps in how a research domain is conceptualized and empirically explored.

Accordingly, this study adopts the TCM framework as the organizing lens for a systematic literature review, employing a mixed-methods (quantitative-qualitative) design that combines bibliometric techniques with qualitative content analysis. The objective is to extract structured data from academic publications to identify key theoretical frameworks, their application across market contexts and the research methods used to operationalize them. The bibliometric component facilitates mapping and relational analysis across the theory-context-method dimensions.

To gather the empirical data needed to answer the research questions, global multidisciplinary bibliographic databases were considered. Among the most comprehensive are Web of Science and Scopus. Given Scopus’s growing prominence, its high coverage of quality data and its more inclusive character (Lim et al., 2022; Valenzuela et al., 2017) the selection was made in favor of Scopus.

Following the database choice, a review of existing bibliometric analyses of comparable scope informed the construction of an appropriate search query. Preliminary tests of various search strings were conducted in Scopus and refined in consultation with subject-matter experts. The final query, applied to the ‘Title’ or ‘Keywords’ fields, was as follows: (bio* OR eco OR ecol* OR green* OR environ* OR sustainab*) AND (label* OR cerific* OR symbol* OR logo* OR signag* OR information* OR package* OR tag* OR produc* OR brand*) AND (consumer* OR customer* OR client* OR shopper* OR buyer* OR purchaser* OR acquirer*) AND (purchas* OR buy* OR consum* OR behav* OR attitude* OR percept* OR insight* OR adopt* OR willing* OR intent* OR acqui* OR perceiv*). The initial dataset of 14 070 records was refined by filtering for research fields (business management and accounting, economics, econometrics and finance, psychology, social sciences), document types (article, review, conference paper) and language (English). Further restrictions limited the sample to empirical studies published in Q1 and Q2 journals, and records addressing food-related topics were excluded. The final dataset comprised 199 peer-reviewed articles spanning the period 1990 to 2023.

3. FINDINGS AFTER TCM FRAMEWORK-BASED REVIEW

3.1 Main theoretical frameworks in GCPB-nF research

In the dataset under analysis, more than 60 theoretical approaches (RQ1) were identified as foundations for research in the GCPB-nF domain; however, the vast majority appeared only once, were seldom employed as comprehensive frameworks for modelling, and more often informed individual constructs or hypotheses or were cited solely in relation to the phenomenon under study. Moreover, over 70 articles did not specify any theory as a theoretical framework, instead justifying their constructs or hypotheses exclusively by reference to prior empirical studies and models. Two frameworks, the Theory of Planned Behavior (TPB) and Willingness to Pay (WTP), emerged as dominant both in quantitative terms (number of articles) and qualitative impact (citation frequency) (see Table 1).

Table 1. Main theoretical frameworks employed in GCPB-nF research

No.	Theory	# of records	% of records	Total citation index	# of records cited ≥ 100
1	Theory of Planned Behavior (TPB)	48	24.12%	3,456	8
2	Willingness To Pay (WTP)	24	12.06%	1,425	4
3	Theory of Reasoned Action (TRA)	12	6.03%	920	2
4	Value-Belief-Norm Theory (VBN)	7	3.52%	126	0

No.	Theory	# of records	% of records	Total citation index	# of records cited \geq 100
5	Consumer Value Theories (CVT)	6	3.02%	645	2
6	Attitude-Behavior-Context (ABC)	5	2.51%	339	1
7	Norm-Activation Model (NAM)	4	2.01%	130	0

Source: Author's own elaboration based on data from the Scopus database

TPB explains intention formation through three determinants: attitude toward the behavior, subjective norms, and perceived behavioral control (PBC). These jointly influence behavioral intention, which, along with PBC, predicts actual behavior (Ajzen, 1991). In our systematic literature-review database, TPB was the most popular framework for research in GCPB-nF, although not all studies seek to extend the model. Some simply invoke its core idea to develop hypotheses (Darnall et al., 2018). Researchers whose work is directly grounded in TPB consistently confirm its central components, while revealing that its predictive power varies across socioeconomic, cultural, and product-specific contexts. The basic TPB model often leaves an intention - behavior gap by overlooking many other factors (Nguyen et al., 2019). This discrepancy reduces the explanatory validity of TPB as a predictive framework. To address these shortcomings, studies have enriched TPB with green-specific antecedents and moderators, such as environmental concern, knowledge or consciousness (Jaiswal & Kant, 2018), information seeking (Testa et al., 2020), social and environmental awareness, and environmental responsibility, ethics and beliefs combined with cultural dimensions (Panda et al., 2020; Rahman & Luomala, 2021). Efficacy beliefs, exemplified by perceived consumer effectiveness which substitutes for PBC, emerges both as a direct antecedent of green purchasing intention and as a key moderator of the intention - behavior link (Chen et al., 2021; Jaiswal & Kant, 2018; Nguyen et al., 2019).

The second popular framework is WTP. While not a theory per se, this concept appears in over 20 papers. WTP is the maximum amount a consumer will pay for specific product or service attributes, and is a key metric for translating consumer attitudes into monetary value. In our systematic review, we found that WTP was used, for example, to examine the relationship between environmental motivations and consumers' willingness to pay a premium for environmentally certified wood products (Vlosky et al., 1999), consumers' WTP for certified environmental labels on paper products and detergents (Bjørner et al., 2004), and the role of WTP in green product purchase decisions, including the effects of price and environmental claims on WTP (Ayadi & Lapeyre, 2016). WTP effectively complements other theories like TPB (Notaro et al., 2022; Orset, 2021), or VBN (Kamboj & Matharu, 2021; Orset, 2021).

TRA (Fishbein & Ajzen, 1975) holds that behavioral intention stems solely from two antecedents: attitude toward the behavior and subjective norms, and thus predates the Theory of Planned Behavior by omitting perceived behavioral control, a gap Ajzen later addressed in TPB. In GCPB-nF research, scholars routinely report the attitude behavior gap (Groening et al., 2018) and thus refer to both, TRA and TPB (Bakiş & Kitapçı, 2023; Nguyen et al., 2019). Some researchers invoke TRA to justify the foundational attitude – intention link (Punyatoya, 2015; Shimul & Cheah, 2023) and then enrich it within the TPB framework.

VBN theory (identified in 7 research papers in our data base) articulates how individuals' acceptance of core values, their beliefs that those values are threatened, and their belief in personal efficacy to address those threats combine to activate a personal moral norm obligating pro-movement action. The model's three clusters of variables: Values, Beliefs and Personal Norms (Stern et al., 1999), provide a framework that researchers in the field of GCPB refer to (Bernard et al., 2015). A whole VBN chain has been tested by Jaini et al. (Jaini et al., 2020), who introduces a hedonic value dimension alongside altruistic values, demonstrating that these values influence, beliefs, that affect personal norms which in turn drive green purchase behavior. WTP-based studies layer in health consciousness, sustainability consciousness, perceived consumer effectiveness, and

sustainability knowledge as antecedents to personal norms and premium-price intentions, illustrating how the framework underpins hypotheses about WTP (Kamboj & Matharu, 2021). Integrations with TPB weave subjective norms and perceived behavioral control into the Awareness of Consequences and Ascription of Responsibility links to capture cultural orientations in cross-contextual green purchase intentions (Rahman & Luomala, 2021).

Although Consumer Value Theory is embedded across various models and frameworks, it is employed to illuminate the value-embedded motivations underlying consumers' green behaviors. Biswas and Roy (2015) adapted Sheth et al.'s theory of consumption values by introducing an environmental value alongside the four classical dimensions, and demonstrating that purchases by green-product advocates are driven primarily by social and epistemic values. Khan and Mohsin (2017) also applies Sheth et al.'s theory, concluding that among all value types, emotional value is the key driver of sustainable consumption. Sobhanifard and Balighi (2018) demonstrated that positive emotions enhance social value and, in turn, strengthen consumers' intention to purchase green products. Ritch (2020) utilized Holbrook's Typology of Consumer Value as the central theoretical framework, showing that aesthetics, convenience, and price (excellence/efficiency) tend to dominate, but well-designed labels and transparent communication can evoke ethical and spiritual values (ethics/spirituality) and enhance the attractiveness of sustainable clothing.

ABC theory adds context to attitude-behavior models: pro-environmental behavior (B) result from the interplay of personal attitudes (A) and situational conditions (C). When contextual supports or constraints are extreme, attitudes matter less, so interventions must shape both beliefs and the surrounding structures (Guagnano et al., 1995; Stern, 2000). In GCPB-nF, ABC has become an effectively adopted theoretical framework for modeling the links between pro-environmental attitudes and actual purchase behavior while accounting for situational context. S. Chen et al. (2021) employed ABC to examine how applications of information and communication technologies (ICT) influence eco-purchase behaviors, defining pro-environmental attitude as and treating ICT context as a moderator of the attitude – behavior relationship. Within the ABC framework Darnall et al. (2018) conceptualize consumers' trust or distrust in ecolabel sponsors as the attitudinal component, the presence of independent third-party certification as the contextual component, and their resulting cognitive information processing as the mediating mechanism that together determine the likelihood of purchasing ecolabeled products. Other researchers approached successfully to extended the ABC framework e.g. by incorporating environmental awareness and environmental concern as a context in the relationship between green skepticism and green purchase intentions (Goh & Balaji, 2016). Also demographic factors may serve as a context.

NAM, a precursor to VBN, posits that pro-environmental behavior is driven by the activation of personal norms, which are context-specific moral obligations (Schwartz & Howard, 1981). Norm activation occurs when individuals (1) recognize the need or consequences of (in)action, (2) attribute responsibility to themselves, and (3) perceive sufficient behavioral control (Klößner, 2013). Filieri et al. (2021) draw on NAM to posit personal moral norms as a moderator of the effects of negative electronic word-of-mouth. In other research, NAM's core constructs have been effectively integrated alongside the TPB variables in a single model which has been applied (Asmi et al., 2022). Researchers demonstrate that activated personal norms significantly drive consumers' intentions to sustainable purchasing.

3.2. Contexts for application of theoretical frameworks

In the analyzed dataset, twelve product categories were identified (Table 2) as the focus of GCPB-nF research (RQ2). The most frequently examined category is “green products,” which alone accounts for double-digit percentages of all studies, without further differentiation by specific environmental attributes. “Clothing and accessories” and “electronics and appliances” also each attain double-digit percentage shares. These three categories therefore emerge as the leading product contexts in GCPB-nF research. The remaining nine categories register much lower

representation, approximately 2 % to 9 % each, and can be regarded as relatively under-researched. Citation analysis reveals the same three categories at the forefront: only “green products,” “clothing and accessories,” and “electronics and appliances” achieve four-digit aggregate citation counts, with “green products” markedly exceeding the others. This category also contains the largest number of articles cited at least 100 times. For all other product groups, citation counts remain below three digits. Thus, both quantitatively (number of articles) and qualitatively (citation impact), “green products” represent the most extensively studied product category within the GCPB-nF domain.

Table 2. Main product categories in GCPB-nF research

No.	Product group	No. of records	No. of records %	Total citation index	No. of records cited >=100
1	green products (green products, eco-friendly products, environmental commodities, products with or without eco certificates, green FMCG products, products from sustainable brands, eco-innovations, ecofriendly products, eco-products, carbon labelled products, sustainable products, sustainable products, ecolabeled and nonlabeled products, pro-environmental products, low-carbon products, carbon-labeled products, eco-friendly designed product, ecological products, sustainable luxury brands, remanufactured products)	77	38.69%	5,425	15
2	clothing & accessories (apparel, clothing, fashion, denim jeans, eco-fashion, textile, sustainable customized garment, eco-friendly apparel, fast-fashion clothing, green apparel, green clothing, green luxury fashion, secondhand clothing, sustainable apparel, sustainable clothing, sustainable fashion, jacket, sustainable plastic clothing, sustainable polyester clothing (derived from recycled plastic bottles), swimwear, T-shirt made from eco-friendly materials, backpack, boots, running shoe with a bio-based sole)	43	21.61%	1,205	2
3	electronics & appliance (green laptop, MP3, headphones, personal computer, smartwatch, electronics, all-in-one inkjet printer, remanufactured camera, innovative smartphone, sustainable and innovative smartphone, laptop, cell phone, batteries, green batteries, household appliances, housewares with a short purchase cycle and low price, green home appliance, appliances, air conditioners)	23	11.56%	1,066	3
4	Cosmetics (soaps, bar soap, eco-friendly shampoo, fragrance, body lotion, shampoo, personal care product, cosmetics, natural beauty products, environmentally-friendly cosmetic, hand soap, natural cosmetics, eco-friendly cosmetics, green cosmetics)	18	9.05%	596	1
5	chemicals & detergents (green chemicals, household chemicals, laundry detergents, dishwashing liquids, detergents, dish detergent, kitchen cleaner, natural laundry detergent)	12	6.03%	496	1
6	Vehicles (electric vehicles, new vehicle technologies, automobiles, car, new energy vehicles, bicycle tire, tires)	11	5.53%	390	1

No.	Product group	No. of records	No. of records %	Total citation index	No. of records cited >=100
7	Energy (photovoltaics (pv) systems, energy-efficient lighting in the home, solar panels (renewable energy technology, electricity, solar energy, energy, light bulb, energy efficient equipment, energy-efficient led light bulbs, fuel from second-generation, nature-inspired lignocellulose processing systems)	9	4.52%	66	0
8	plastic-based products (bioplastic jacket, disposable cups made of bioplastics, green plastic products, pha-based bioplastics (bio-waste products), products made of recycled ocean plastic, single-use plastic products)	6	3.02%	195	0
9	service (hotels, bike-sharing, lodging, transportation, housing)	6	3.02%	283	1
10	paper products (paper towels, toilet paper, household paper, paper)	5	2.51%	352	1
11	Packaging (food bags, circular packaging, packaging, recyclable shopping bags, bio-based plastic drink bottle for bicycles)	5	2.51%	195	0
12	furniture & building housing products (furniture, children furniture, building housing products)	4	2.01%	71	0

Note: in the [percentage share] column, 100 % corresponds to 199 records.

Source: Author's own elaboration based on data from the Scopus database

The most widely used theoretical framework, TPB, is applied predominantly to the general category of green products (58 percent of its applications). A similar distribution is observed for the ABC and CVT frameworks, where only one in every five to six articles examines a category other than green products. However, when employing the WTP framework, researchers tend to focus on a specific product category (75 percent of applications) rather than on green products in general (25 percent). NAM also presents an interesting case: in the analyzed dataset, every article utilizing NAM addresses a particular product category. It is also notable that the ABC and CVT frameworks are the least extensively examined in terms of product context (see Table 3).

Table 3. Product contexts in light of the theoretical frameworks

Product group no. /theory	1	2	3	4	5	6	7	8	9	10	11	12
TPB	28	6	4	2	3	1	2		3		1	
WTP	6	3	5	2	1		2	1	2	1	1	1
TRA	7	1			1		1		1		1	
VBN	3			1	1		2			1		
CVT	5	1										
ABC	4			1								
NAM		1	2	1	1							

Note: in the "Product group no. / theory" column, the same order of product groups as in Table 2 has been used.

Source: Author's own elaboration based on data from the Scopus database

3.3. Methods utilized with different theoretical frameworks

RQ3 enabled an analysis of the research methods employed in the GCPB-nF domain. Quantitative survey research dominated by an overwhelming margin. Various experimental designs were also used relatively frequently. Other methods, in-depth interviews (IDI), ethnography, mixed methods, focus group interviews (FGI), desk research, appeared very rarely, at levels of only a few percent, up to just over 3%. It was also observed that multiple methods are seldom combined in a single article, whether as mixed methods or as two separate studies employing different techniques but conceptually linked. The prevalence of surveys leads to its application across the major theoretical perspectives: TPB, WTP and TRA, which are the most widely used frameworks. However, given the lower intensity of exploitation of theories such as VBN, CVT and ABC, the use of survey methods in 5–6 articles per theory represents a relatively strong outcome. The application of survey-based research amplifies the intention–behavior gap, as surveys predominantly measure self-reported intentions rather than observed actions. This methodological bias contributes to the overestimation of predictive power of models such as TPB’s. Experimental approaches and studies using behavioral or transactional data represent promising alternatives that may help close the gap and provide stronger validity tests for theoretical frameworks. It is noteworthy that experiments are relatively frequently paired with the WTP framework. For the remaining methods and their associated theoretical frameworks, significant research gaps remain (see Table 4).

Table 4. Research methods and their associated theoretical frameworks

Theory/method	TPB	WTP	TRA	VBN	CVT	ABC	NAM
Survey: 141 (70,85%)	44	15	12	6	5	5	2
Experiment: 48 (24,12%)	2	9		1			1

Source: Author’s own elaboration based on data from the Scopus database

With respect to the use of specific methods for studying particular product groups, survey research and experiments are employed across all categories. However, IDI and ethnography are used primarily to investigate clothing and accessories, although their absolute usage is low. The remaining methods, such as mixed methods, FGI and desk research, are applied only incidentally to individual product categories (see Table 5).

Table 5. Use of specific methods for analysis of product group data

Product group no. /method	1	2	3	4	5	6	7	8	9	10	11	12
survey	69	25	12	10	4	7	7	3	4	2	2	3
experiment	6	12	11	7	7	4	1	3	2	3	2	1
IDI	2	4					1					
Ethnography		2										

Note: in the “Product group no. /method” column, the same order of product groups as in Table 2 has been used.

Source: Author’s own elaboration based on data from the Scopus database

4. CONCLUSIONS

Following analysis, it appears that in approximately 70 cases (35 percent of articles) no reference is made to a specific theoretical framework. Where a framework is specified, the most commonly employed constructs are those from TPB and WTP, with the TRA appearing as a third frequent reference (RQ1). These three theories demonstrate relative universality for this type of analysis and often co-occur. Their strong theoretical fit and validation in prior studies justify their continued use in subsequent GCPB-nF research. At the same time, the under-representation of other theoretical

constructs highlights clear research gaps. These gaps represent opportunities for scholars in GCPB-nF and related domains to introduce well-established theories as robust foundations for future studies. Simultaneously, the lack of application of certain constructs signals fresh challenges and avenues for novel inquiry.

An important implication of our findings in the context of RQ1 is that the intention–behavior gap challenges the validity of widely used frameworks such as TPB and TRA. Although these models remain theoretically robust, their predictive performance is limited if the gap is not explicitly addressed. Future research should therefore integrate TPB with complementary theories (e.g., VBN, NAM, ABC) and adopt methodological strategies that capture actual consumer behavior, thereby improving the validity and applicability of theoretical models in GCPB research.

Regarding product contexts (RQ2), ‘green products’, ‘clothing and accessories’ and ‘electronics and appliances’ emerge as the most thoroughly investigated categories. Researchers in this domain can leverage a solid empirical base to conduct more in-depth studies. In contrast, the remaining product groups offer fertile ground for innovative research, as they remain largely unexplored. Analysis of products generally lacks theoretical framing, presenting yet another research gap and challenge. Only in the case of green products combined with TPB can one speak of theory-driven analyses of product contexts. The absence of similar applications for other products and theories underscores the domain’s attractiveness for pioneering investigations.

Surveys and experiments dominate the methodological landscape (RQ3). Other approaches are under-represented. Survey research is employed across nearly all identified theories, whereas experiments tend to rely on the WTP framework. From this, the recommendation for researchers is twofold: surveys align well with multiple theories, but when designing experiments, WTP should be given strong consideration. It is also advisable to explore alternative methods, such as in-depth interviews, ethnography, or focus groups, in conjunction with established theories like TPB, WTP, or TRA. To probe less examined and more innovative areas, researchers should consider applying other theoretical perspectives in qualitative studies, which remain scarce. When designing studies by product category, surveys and experiments provide a well-documented foundation across many groups, facilitating more detailed future investigations. In contrast, applying other methods to specific product categories represents an opportunity for novel research. Although such efforts may lack direct precedents in the literature, they pose an exciting empirical challenge.

Based on these analyses and conclusions, we recommend adopting theoretical prisms such as the VBN and NAM, or other frameworks such as Self-Determination Theory, or information processing theories to explore specific product groups. Given the susceptibility of self-report measures to measurement and systematic error, we advocate for quantitative experiments that compare intervention and control groups, thereby enabling generalizable conclusions. Additionally, considering the extensive use of TPB and WTP, conducting a meta-analysis to confirm predictor relevance in these models would be a valuable exercise to systematize existing findings.

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