

## Theory of Planned Behaviour and its Applications in Marketing Contexts: A Systematic Literature Review and Future Directions

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**ABSTRACT:** This study employs a Systematic Literature Review (SLR) combined with bibliometric analysis to examine the evolution of the Theory of Planned Behaviour (TPB) in marketing research. Drawing on 55 Scopus- and Web of Science-indexed articles published between 2021 and 2025, VOSviewer is used to map research trends and thematic structures. The findings show that core TPB constructs remain central predictors of consumer intention, while extensions such as trust, perceived risk, and moral norms increasingly enhance explanatory power in digital and sustainability contexts. However, challenges persist, including the intention-behaviour gap and limited cross-cultural validation. This study advances marketing theory by proposing an integrative framework linking psychological, technological, and contextual factors to support sustainable and consumer-oriented marketing strategies.

**Keywords:** Theory of Planned Behaviour (TPB), Consumer Intention, Marketing Research, Purchase Intention, Customer Loyalty, Bibliometric Analysis, Systematic Literature Review (SLR).



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## INTRODUCTION

Over the past decade, the Theory of Planned Behavior (TPB) has emerged as a leading framework for explaining consumer behavior in marketing, with attitude, subjective norm, and perceived behavioral control serving as the core determinants of intention and behavior. Originally introduced by Ajzen (Ajzen, 1991) and later refined by Ajzen and Fishbein (Ajzen & Fishbein, 2010, 2011). In the context of digital transformation, TPB is increasingly used in marketing to explain online and green consumption, and its integration with TAM and UTAUT strengthens digital behavior models by emphasizing the roles of trust and subjective norms in technology adoption (Koteczki & Balassa, 2025; Wu & Chen, 2005). Recent studies further highlight TPB's predictive capability in explaining purchase intention through AI-driven advertising and digital personalization approaches (Naskar & Lindahl, 2025).

Despite its widespread use, TPB applications in marketing remain fragmented across green, digital, and social contexts, prompting extensions with variables such as trust, perceived risk, moral norms, and habit to better explain ethical and sustainable consumer behavior (Dangelico et al., 2024; Peng et al., 2025; Zhai et al., 2025). The study identifies key gaps in TPB-based marketing research,

including limited cultural generalizability and methodological consistency, with insufficient explanation of how extended variables strengthen the attitude–intention link across contexts ([Ogiemwonyi, 2024](#); [Rozenkowska, 2023a](#); [Syed et al., 2024](#)). This fragmentation underscores the need for a Systematic Literature Review (SLR) that systematically maps the evolution and relevance of TPB within marketing research.

This study reviews TPB applications in marketing (2021–2025), mapping key trends and gaps in digital and sustainability-oriented consumer behavior research. The Theory of Planned Behavior (TPB) positions intention as the central link between psychological determinants and actual behavior. Attitude toward a product, social norms, and perceived behavioral control collectively shape purchase intention in marketing contexts ([Ajzen, 1991](#)). Recent studies support this theoretical foundation ([Mucha, 2024](#)) found that attitude and perceived control significantly influence purchase intention, while social norms have no effect. ([Magwegwe & Shaik, 2024](#)) confirmed TPB's effectiveness in predicting purchase intention for fast fashion but noted the absence of habit and emotional factors. Moreover ([Müller-Pérez et al., 2025](#)) Recent studies ([Müller-Pérez et al., 2025](#)) extend TPB with health consciousness and price sensitivity, alongside constructs such as brand trust, perceived value, hedonic motivation, and environmental anxiety, to better capture contemporary consumer behavior ([Liu & Wang, 2023](#); [Sun & Moon, 2024](#)). The flexibility and adaptability of TPB thus reaffirm its status as a core theoretical model for explaining consumer decision-making across generations and industry sectors.

Despite rapid growth, TPB-based marketing research remains fragmented and insufficiently integrates digital, sustainability, and psychological factors, leaving the intention–behavior gap unresolved. This review synthesizes recent studies to extend TPB with trust and environmental risk, proposing an integrative framework that reflects its evolution in digital and sustainability contexts.

RQ1: How has the Theory of Planned Behavior (TPB) been applied across different marketing contexts over the past five years?

RQ2: What theoretical extensions or integrations have been employed to enhance TPB's explanatory power?

RQ3: What methodological patterns and trends can be observed in TPB-based marketing research?

RQ4: What key research gaps and future directions emerge from recent TPB studies in the marketing field?

### **Theory of Planned Behaviour as Theoretical Foundation in Marketing Contexts**

The Theory of Planned Behavior (TPB), developed by ([Ajzen, 1991](#)) and rooted in the Theory of Reasoned Action ([Fishbein & Ajzen, 1975](#)) later popularized by ([Trafimow, 2009](#)) has become a central theoretical framework in explaining consumer behavior within marketing research. TPB posits that behavior is driven by attitude, subjective norm, and perceived behavioral control, which shape intention and subsequent behavior; attitude reflects evaluation, subjective norm social pressure, and perceived control perceived capability ([Ajzen, 2020a](#); [Paul et al., 2016](#)). In marketing

contexts, TPB has been widely applied to explain diverse behaviors such as online purchase intention ([Nguyen et al., 2023a](#)), customer loyalty ([Neves et al., 2022](#)), engagement in electronic word-of-mouth (e-WOM) ([Ngo, Bui, et al., 2024](#)), and digital technology adoption ([Usman et al., 2025](#)). The model enables researchers to understand how cognitive and social factors interact to shape consumer decision-making in complex and dynamic market settings.

In the digital and sustainability era, TPB has been extended with constructs such as trust, perceived risk, perceived value, and environmental concern to better explain the multidimensional nature of contemporary consumer behavior ([Cabeza-Ramírez et al., 2022](#); [Hussain & Huang, 2022](#); [Kaur et al., 2022](#); [Ling et al., 2023](#); [Liu & Wang, 2023](#); [Preety & Ahlawat, 2023](#)). These findings have been reinforced by recent syntheses ([Handoyo, 2024a](#); [Sharma et al., 2023](#)). Trust strengthens the attitude–purchase intention link, while perceived risk weakens it, and integration with TAM and NAM shows TPB’s evolution into a comprehensive model incorporating moral, emotional, and technological dimensions ([Ji et al., 2024](#); [Le & Nguyen, 2022](#)), and technology ([Jiao & Cao, 2024](#); [Nguyen et al., 2023b](#)).

## Literature Review

TPB is widely applied in marketing to explain consumer intention and behavior in online and green consumption, with recent reviews emphasizing the need to better integrate its core constructs with extended variables for future research ([Rozenkowska, 2023b](#)). Recent reviews show that TPB’s attitude, norms, and perceived control are enriched by environmental concern, moral standards, and habit in explaining green purchase intention, yet inconsistent findings call for a more refined conceptual synthesis ([Patiño-Toro et al., 2024](#)).

In digital marketing, integrating TPB with TAM and UTAUT enhances the attitude–intention link through usefulness, ease of use, enjoyment, and value, with the combined model outperforming standalone approaches in explaining online purchase intention ([Nguyen et al., 2023c](#)). In social commerce, extending TPB with social support and cultural factors enhances attitudes and behavioral intention, highlighting the importance of socio-cultural influences on social platforms ([Leong et al., 2023](#)). The extended Trust–TAM–TPB framework has proven particularly relevant in emerging markets for modeling fintech and digital payment adoption, demonstrating that trust acts as a crucial bridge between perceived risk and usage intention ([Wu & Chen, 2025](#)). Recent SLRs and applied TPB studies in e-commerce further confirm that perceived risks financial, security, and product-related consistently suppress purchase intention across marketing contexts, while trust functions as a key mediator or moderator in this relationship ([Wu & Chen, 2025](#)).

Past behavior is often overlooked in TPB-based studies, despite its importance in explaining the intention–behavior gap in green consumption; incorporating behavioral history, along with emotions, product traits, and contextual factors, can significantly enhance TPB’s predictive power and support more effective sustainable marketing strategies ([de Sio et al., 2024](#)).

Overall, the findings indicate that improving consumer intention and marketing outcomes requires an integrative approach that combines behavioral factors, attitude- and norm-based strategies, trust

building, risk reduction, and supportive digital environments, while guiding future TPB research toward cross-cultural and longitudinal analyses.

### **Core Variables & Extensions**

The Theory of Planned Behavior (TPB) explains that consumer actions are driven by behavioral intention, which is shaped by attitude, subjective norm, and perceived behavioral control across contexts such as digital adoption, sustainability, and marketing ([Ajzen, 2020a](#); [Ajzen & Fishbein, 2010, 2011](#)). The Theory of Planned Behavior (TPB) provides a strong conceptual foundation for explaining how attitudes, subjective norms, and perceived behavioral control jointly shape consumer intentions and behaviors, with recent empirical evidence reaffirming its theoretical robustness ([Conner & Norman, 2022](#); [Norman & Conner, 2005](#)). Consistently demonstrating its effectiveness in explaining the relationship between behavioral intention and actual behavior across diverse research domains, while ([Zhao et al., 2025](#)) demonstrated that incorporating situational and technological variables strengthens PBC's role in bridging the intention–behavior gap in sustainable consumption.

In digital marketing, the Theory of Planned Behavior (TPB) has evolved through integration with the Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT), enhancing understanding of how perceived usefulness and ease of use interact with attitude and social norms in shaping online purchase intention. Studies by ([Nguyen et al., 2023d](#)) and ([Wu & Chen, 2025](#)) confirm that incorporating trust and perceived value strengthens the TPB–TAM framework, underscoring TPB's role as both a psychological and strategic model for explaining digital consumer behavior.

The Theory of Planned Behavior (TPB) has evolved to incorporate sustainability dimensions, emphasizing moral values, social responsibility, and environmental awareness in shaping ethical consumer behavior. Studies by ([Kim, 2023](#); [Le & Nguyen, 2022](#)) integrating TPB with the Norm Activation Model (NAM) revealed that altruism and moral obligation strengthen the attitude–intention relationship in green purchasing. Similarly ([Zhai et al., 2025](#)) expanded TPB into the Extended TPB (ETPB) by adding moral identity and corporate green culture, enhancing its explanatory power for environmentally responsible behavior. Then explained by ([Li & Shan, 2025](#)) further demonstrated that health consciousness and environmental awareness indirectly influence purchase intention through attitude, subjective norm, and perceived control. Collectively, these findings confirm TPB's transformation into a multidimensional model integrating technological, social, and moral factors to explain contemporary consumer behavior.

### **Strategic Role of Theory of Planned Behaviour**

In marketing strategy, TPB serves as a practical framework linking attitudes, social norms, and perceived behavioral control to managerial actions such as communication design, trust building, and value proposition development, enabling marketers to shape behavior by enhancing value perceptions, reducing barriers, and leveraging social influence through e-WOM. Empirical

evidence shows that integrating moral norms and altruism into TPB-based frameworks enhances green purchase intention, while recent marketing studies indicate that TPB-informed strategies such as trust building in e-commerce and norm-based social proof in digital campaigns lead to higher conversion rates, stronger engagement, and more sustained behavioral change ([Le & Nguyen, 2022](#)). Similarly, TPB extensions incorporating social media trustworthiness have been shown to enhance consumer attitudes and intention in online shopping contexts ([Sharma, 2022](#)), live-commerce research also confirms that attitude, social norms, and perceived control meaningfully shape online shopping intentions, which supports the application of TPB in designing interactive and trust-oriented digital campaigns ([Zhang & Chen, 2023](#)).

In digital marketing, the integrated TAM–TPB framework offers a robust foundation for designing seamless, value-oriented, and socially validated shopping experiences, where perceived usefulness and ease of use shape attitudes that, alongside norms and PBC, drive online purchase intention ([Nguyen et al., 2023e](#)). Empirical evidence shows that enhancing trust through transparency, service quality, and security mechanisms mitigates perceived risk and strengthens purchase intention, guiding interface and policy design ([Jadil et al., 2022](#)). In green marketing, the Theory of Planned Behavior supports value propositions that emphasize green perceived value and health consciousness, with consumer knowledge shown to enhance sustainable purchasing among Generation Z ([Jakubowska et al., 2024](#)). Recent studies demonstrate that the quality, volume, and credibility of e-WOM significantly shape subjective norms and attitudes, providing a data-driven foundation for influencer and user-generated content (UGC) strategies ([Ngo, Bui, et al., 2024](#); [Ngo, Vuong, et al., 2024](#)). Moreover, e-WOM quality, volume, and credibility influence subjective norms and attitudes, providing a data-driven basis for influencer and UGC strategies ([Ngo et al., 2024](#)). Collectively, TPB functions as an operational framework linking psychological insight to measurable marketing interventions, remaining theoretically relevant through its integration with moral (NAM) and technological (TAM) models in addressing contemporary digital and sustainable marketing challenges ([Kim, 2023](#)).

### **New Focus: Technology and Sustainability of Theory of Planned Behaviour**

Recent TPB-based consumer research increasingly integrates technology through models such as TAM and UTAUT, showing that performance expectancy, ease of use, facilitating conditions, and social influence strengthen TPB's ability to predict green technology adoption, particularly by helping translate purchase intention into actual behavior ([Mishra, G. P, Mishra, K. L. and Sahdeo, 2025](#)).

In the sustainability domain, TPB has been extended with environmental and green value variables to contextualize the model amid climate and regulatory challenges. Studies by ([Kim et al., 2025](#); [Wu & Lee, 2025](#); [Zong et al., 2023](#)) show that functional, social, emotional, and ethical consumption values significantly influence sustainable purchase intention. Similarly, green marketing research incorporating health consciousness and environmental awareness into TPB demonstrates that these factors indirectly affect purchase intention through attitude, subjective norm, and perceived control, reinforcing the importance of environmental values and consumer education for promoting sustainable action ([Li & Shan, 2025](#)).



Furthermore, the integration of TPB and technology extends beyond digital product adoption to the use of smart applications in sustainable practices. For instance, combining TPB and TAM in the green building information modeling (BIM) domain enhances the explanatory power for eco-technology adoption in construction compared to single models ([Wei et al., 2025](#)). Cross-cultural studies also reveal that TPB's application to green products interacts with cultural values, serving as key moderators in international consumer behavior models ([Rakuša & Milfelner, 2025](#)). Collectively, this evidence indicates that merging TPB with technological and sustainability dimensions represents a fundamental theoretical advancement, ensuring its continued relevance in addressing future challenges of digital and sustainable marketing.

## METHOD

This study identifies and synthesizes academic findings on the application of the Theory of Planned Behavior (TPB) in marketing contexts published between 2021 and 2025. The review is based exclusively on the Scopus database, which is widely recognized as the largest and most comprehensive source of peer-reviewed academic literature, offering robust journal coverage and reliable search and citation indexing capabilities ([Paul & Criado, 2020](#); [Waehning & Wells, 2024](#)). A Scopus-based systematic literature review approach was adopted to ensure a structured, transparent, and replicable process for identifying, screening, and synthesizing relevant studies ([Linnenluecke et al., 2020](#)). This approach enhances methodological rigor by applying consistent inclusion and exclusion criteria within a single, high-quality database, thereby minimizing duplication and database-induced bias. By relying on Scopus as the sole data source, the study ensures clarity in the search strategy, facilitates replicability, and supports a coherent synthesis of TPB's recent evolution and application in marketing research ([Richard Thorpe, Robin Holt & Pittaway, 2005](#)).

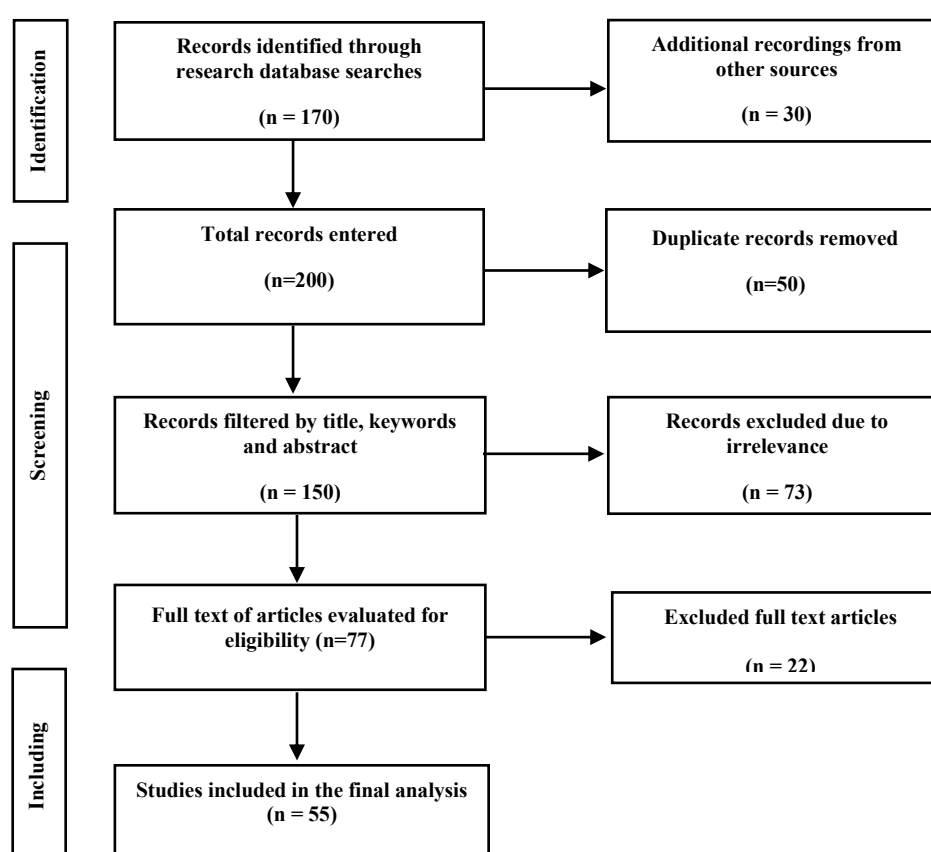
To identify relevant literature, articles were retrieved from the Scopus database using a combination of keywords derived from the study's theoretical framework. The search was performed within the title, abstract, and keyword fields (TITLE-ABS-KEY) using the following query: TITLE-ABS-KEY(("theory of planned behaviour" OR "theory of planned behavior" OR "TPB") AND ("marketing" OR "marketing research" OR "consumer behavior" OR "purchase intention" OR "buying behavior" OR "green marketing" OR "digital marketing" OR "social media marketing")) AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English")) AND (PUBYEAR > 2020 AND PUBYEAR < 2025).

This procedure ensured that all selected publications were English-language journal articles published between 2021 and 2025 that explicitly examined the application of the Theory of Planned Behavior (TPB) within marketing contexts. This review followed a systematic literature review (SLR) procedure guided by ([Kitchenham, 2007](#)), and fully aligned with the PRISMA 2020 Statement ([Page et al., 2021](#)), to ensure transparency, rigor, and replicability. The identification stage yielded 170 records from Scopus database searches and an additional 30 records from supplementary sources, resulting in 200 total records. After removing 50 duplicate records, 150 unique articles remained for title, keyword, and abstract screening. During this screening stage, 73

records were excluded due to irrelevance to TPB applications in marketing, leaving 77 articles for full-text eligibility assessment.

During the eligibility stage, 77 full-text articles were assessed against predefined criteria, resulting in the exclusion of 22 studies due to limited theoretical or methodological relevance, and the inclusion of 55 articles for final thematic synthesis and bibliometric analysis. To ensure reliability, two reviewers independently conducted the screening and eligibility assessments, resolving discrepancies by consensus, followed by inductive and deductive coding in Microsoft Excel to extract key study characteristics and TPB construct extensions.

Through a PRISMA-based multi-stage screening process, 55 articles were selected, forming a robust basis for analyzing research trends, theoretical developments, and emerging TPB extensions in digital and sustainability-oriented marketing research.



**Figure 1.** PRISMA flow diagram (Ramírez-Saltos et al., 2023)

**Table 1.** Keyword Database Article

Criteria	Description
Keywords	Kw 1 – theory of planned behaviour
	Kw 2 – theory of planned behavior
	Kw 3 – TPB

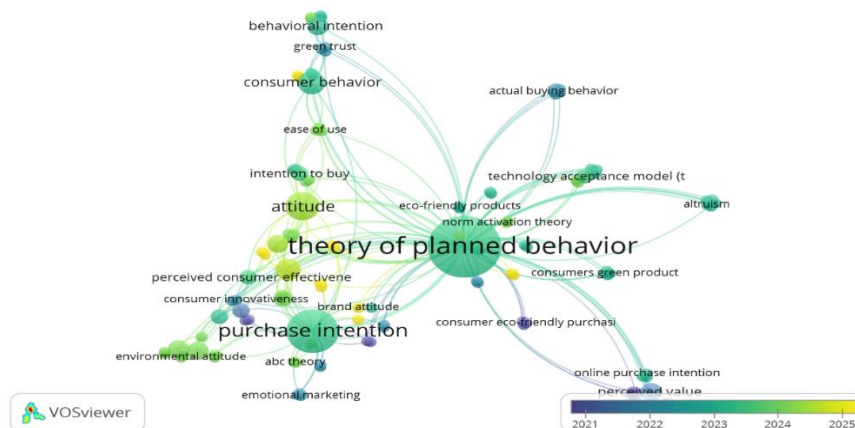
Criteria	Description
	Kw 4 – marketing Kw 5 – consumer behavior Kw 6 – purchase intention Kw 7 – green marketing Kw 8 – digital marketing Kw 9 – social media marketing
<b>Search Engines / Databases</b>	ED 1 – Scopus ED 3 – Emerald Insight ED 5 – Google Scholar ED 6 – ScienceDirect ED 7 – SAGE Journals ED 8 – Frontiers ED 9 – Wiley Online Library ED 10 – Taylor & Francis Online
<b>Inclusion Criteria</b>	IC1 – Title, abstract, keywords, and full text contain the selected keywords. IC2 – Published in peer-reviewed, Scopus-indexed journals. IC3 – Published between 2021 and 2025. IC4 – Full-length research articles only.
<b>Exclusion Criteria</b>	EC1 – Articles not directly related to TPB or marketing contexts. EC2 – Editorials, books, essays, conference abstracts, and opinion papers were excluded.

Table 1 outlines the database search strategy applied in this systematic review, which covered ten major academic databases using predefined TPB- and marketing-related keywords in titles, abstracts, and keywords. Only English-language, peer-reviewed journal articles published between 2021 and 2025 were included, while non-article sources were excluded, ensuring a transparent and reproducible selection process aligned with PRISMA and Kitchenham guidelines.

## RESULT AND DISCUSSION

Figure 1 shows that TPB-based marketing studies (2021–2025) remain centered on attitude and purchase intention, with emerging integration of TAM and NAT in digital and sustainability contexts, highlighting attitude as a key driver of consumer decision-making (Aizen, 1991). Furthermore, the close association between purchase intention, eco-friendly products, and green trust confirms the extensive application of TPB in green marketing and sustainable consumption research, where moral considerations and environmental responsibility increasingly shape purchasing decisions.



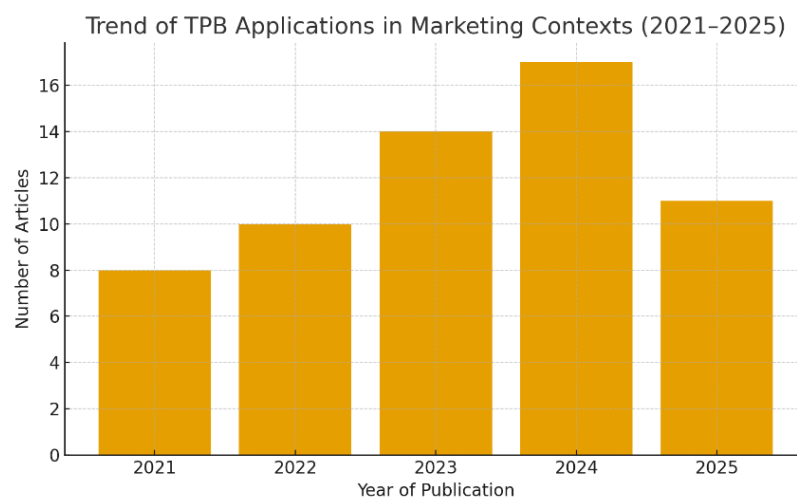


**Figure 2.** Visualization Map

The bibliometric patterns reveal a shift in TPB-based marketing research toward sustainability and technology-oriented consumer behavior, with increasing emphasis on eco-friendly products, perceived value, and technology acceptance, positioning TPB as an integrative rather than standalone framework. Consistent with this trend, publication growth from 2021 to 2025—peaking in 2024—confirms TPB’s continued relevance in explaining consumer intention and behavior in digital and sustainability-driven markets.

**Table 2.** Trend of TPB Applications in Marketing Contexts (2021–2025)

Period	Number of Articles
2021	8
2022	10
2023	14
2024	17
2025	11
Total	60



Based on 55 articles, TPB-based marketing studies are classified into ten thematic clusters spanning sustainable consumption, green tourism, healthy food, and digital technology adoption. While core TPB constructs remain central, extended variables such as trust, moral norm, and environmental concern enhance the model's explanatory power (see Table 3).

**Table 3.** Co-Occurrence Keyword for Clusters (2021–2025)

<b>Keywords</b>	<b>OC</b>	<b>TLS</b>	<b>Keywords</b>	<b>OC</b>	<b>TLS</b>
<b>Cluster 1 – Core TPB Constructs</b>			<b>Cluster 4 – Sustainability and Green Marketing</b>		
Theory of Planned Behavior	45	60	Green Product	8	14
Attitude	35	45	Eco-Friendly Products	10	18
Subjective Norm	20	22	Green Trust	6	10
Perceived Behavioral Control	18	20	Environmental Attitude	7	9
Behavioral Intention	15	18	Perceived Consumer Effectiveness	8	13
Intention to Buy	12	15	Norm Activation Theory	5	8
Purchase Intention	30	40	Altruism	4	6
<b>Cluster 2 – Consumer Behaviour and Emotional Marketing</b>			<b>Cluster 5 – Digital Marketing and Technology Acceptance</b>		
Consumer Behavior	25	38	Technology Acceptance Model	12	17
Brand Attitude	10	12	Perceived Value	9	11
Emotional Marketing	8	10	Online Purchase Intention	11	14
Consumer Effectiveness	7	9	Ease of Use	10	13
Purchase Decision	6	8	Consumer Innovativeness	6	9
Impulsive Buying	5	7	E-Commerce	5	8
Behavior	5	8	Digital Marketing	8	12
<b>Cluster 3 – Psychological and Social Determinants</b>			<b>Cluster 6 – Integrative and Hybrid Constructs</b>		
Trust	20	27	Habit	9	13
Perceived Risk	15	22	Actual Buying Behavior	8	11
Moral Norms	10	14	Perceived Risk	7	9
Motivation	8	12	Self-Control	6	8
Consumer Values	7	9	ABC Theory	4	6
Personality Traits	5	7	Behavioral Intention (Extended)	5	7
Collectivism	4	6	Eco-Friendly Purchase	6	9

Notes: OC (Occurrence), TLS (Total Link Strength):

#### **Cluster 1 – Core TPB Constructs and Consumer Intention**

The first cluster highlights the core TPB constructs attitude, subjective norm, and perceived behavioral control as key predictors of consumer intention and behavior, with strong links between attitude and purchase intention confirming TPB's continued relevance in marketing research

([Ajzen, 2020b](#); [Ajzen & Fishbein, 2011](#); [Conner & Norman, 2022](#)). Recent studies show contextual variation in TPB effects, with subjective norms stronger in socially visible and collectivist contexts, while perceived behavioral control dominates in digital and technology-mediated settings. Meta-analytic evidence ([Paul et al., 2016](#)) supports TPB's predictive validity, showing that its explanatory power is context-dependent, shaped by the relative influence of social norms and behavioral control across markets.

### **Cluster 2 – Consumer Emotion, Attitude, and Purchase Decision**

The second cluster emphasizes emotion and brand attitude as mechanisms linking purchase intention to actual behavior, showing how affective responses complement TPB's cognitive constructs in competitive markets. Recent studies ([Hussain & Huang, 2022](#); [Preety & Ahlawat, 2023](#)) show that emotional attachment and positive experiences strengthen purchase intention and help reduce the intention–behavior gap, suggesting that emotional and experiential marketing strategies effectively convert intention into action.

### **Cluster 3 – Trust, Moral Norms, and Perceived Risk**

The third cluster highlights trust, perceived risk, and moral norms as key TPB extensions, with studies integrating TPB and NAM showing that moral obligation strengthens the attitude–intention link in sustainable consumption. ([Ji et al., 2024](#); [Le & Nguyen, 2022](#)) demonstrate that altruism and moral obligation strengthen the attitude–intention link in sustainable consumption, highlighting the growing role of moral and affective factors in consumer behavior. This trajectory is consistent with recent findings ([Handoyo, 2024b, 2024a](#); [Teixeira et al., 2023](#); [Wang et al., 2023](#)) Consistent with recent studies, this cluster shows that social influence and e-WOM shape digital consumer intention, positioning TPB as a multidimensional framework in digital and sustainability contexts. Trust facilitates intention–behavior translation, perceived risk hinders action, and moral norms strengthen intention through value-based motivation.

### **Cluster 4 – Green Marketing and Sustainable Consumerism**

Recent research by ([Nguyen et al., 2023c](#)), show that integrating TPB with TAM in online purchasing and with NAT in green consumption extends TPB's explanatory power by incorporating technological usability and moral considerations into intention formation. Complementary evidence from subsequent studies ([Ji et al., 2024](#)). Complementary evidence from subsequent studies, ([German Ruiz-Herrera et al., 2023](#); [Guo & Zhang, 2024](#); [Nguyen et al., 2023, 2023, 2023](#)) Subsequent studies confirm that integrating TPB with complementary theories improves predictive accuracy, distinguishing technology-driven adoption in digital commerce (TAM–TPB) from value- and norm-driven motivation in sustainable consumption (TPB–NAT), and highlighting TPB's adaptability to different behavioral logics.

### **Cluster 5 – Technology Acceptance and Digital Behaviour**

The fifth cluster reflects TPB's shift toward digital and sustainability contexts, where links among attitude, brand attitude, perceived value, and green trust strengthen green and online purchase intention, indicating more contextualized TPB applications. Empirical evidence ([Ikram, 2022](#); [Liu et al., 2025](#); [Zhuang et al., 2021](#)) for example, shows that green trust significantly strengthens the

influence of attitudes on the intention to purchase sustainable products, while research (Ng, 2023; Sypniewska et al., 2023) adding that environmental attitude and perceived consumer effectiveness broaden the scope of TPB in explaining green behavior (Dangelico et al., 2024; Do et al., 2025; Hussain & Huang, 2022; Kamalanon et al., 2022; Zhuang et al., 2021). This study demonstrates TPB's evolution into a multidimensional framework suited to digital commerce and sustainability contexts, showing that integration with complementary theories enhances its explanatory power and provides a strong foundation for future marketing research and strategy development.

**Table 4.** Integrative Summary of TPB-Based Marketing Research Clusters (2021–2025)

Cluster	Thematic Focus		Key Variables / Extensions		Key Insights / Contributions
Cluster 1	Core Constructs & Consumer Intention	TPB	Attitude, Norm, Behavioral (PBC), Intention	Subjective Perceived Control Purchase	Reaffirms TPB as a dominant framework, with attitude consistently predicting intention, while subjective norms dominate in socially visible contexts and perceived behavioral control in digital settings.
Cluster 2	Consumer Emotion, Brand Attitude & Purchase Decision	Brand	Emotion, Attitude, Attachment, Experience	Brand Emotional Customer	Shows that affective and experiential factors translate intention into action, helping reduce the intention–behavior gap through emotional and experiential marketing strategies.
Cluster 3	Trust, Norms & Perceived Risk	Moral	Trust, Perceived Risk, Moral Norms, Altruism, e-WOM		Shows TPB’s extension into moral and social dimensions, with trust bridging intention and action, perceived risk acting as a barrier, and moral norms amplifying intention in sustainable and digital contexts..
Cluster 4	Green Marketing & Sustainable Consumerism		TPB–NAT, TAM–TPB, Moral Obligation, Perceived Ease of Use, Perceived Value		Highlights two complementary streams technology-driven adoption and value-driven motivation clarifying TPB’s adaptability to instrumental and ethical decision logics.
Cluster 5	Technology Acceptance & Digital Consumer Behaviour		Online Intention, Green Trust, Perceived Environmental Attitude, Consumer Effectiveness	Purchase Trust, Value, Perceived	Indicates a shift toward digitally and sustainability-oriented TPB applications, where technological affordances and environmental efficacy strengthen green and online purchase intentions.

## CONCLUSION

The Theory of Planned Behavior (TPB) remains a robust framework for explaining consumer behavior in digital and sustainability contexts, with integrations of TAM, UTAUT, and NAM enhancing its predictive power through moral, technological, and environmental factors. Recent studies highlight trust ([Islam et al., 2024; Wang et al., 2022](#)), perceived risk ([German Ruiz-Herrera et al., 2023; Wang et al., 2023](#)), green value ([García-Salirrosas et al., 2023; La Rosa & Johnson Jorgensen, 2021; Phu M.T & L.N.K., 2024; Wang et al., 2023](#)), along with subjective norms, moral norms, and cultural norms, these extensions broaden TPB's predictive scope to encompass pro-environmental behavior and green technology adoption. ([Guo & Zhang, 2024; Handoyo, 2024b; Teixeira et al., 2022; Wang et al., 2023](#)).

Despite TPB's strong predictive power, gaps remain in addressing the intention–behavior gap, cross-cultural validity, and digital–sustainability integration. This review structures recent TPB-based marketing research, demonstrates the value of integrating TPB with TAM, UTAUT, and NAM, and clarifies its boundary conditions, calling for integrative, cross-cultural, and longitudinal models to strengthen TPB's theoretical and practical relevance.

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