

EXPLORING ANTICIPATED WARM GLOW IN SUSTAINABLE FOOD CONSUMPTION: A SYSTEMATIC LITERATURE REVIEW

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Abstraction

The phenomenon related to Anticipated Warm Glow is becoming an important focus in individual purchasing decisions. People are motivated not only by economic factors but also by the actual moral basis of their actions, as well as by the positive emotions they anticipate feeling after doing good. Research on the concept of Anticipated Warm Glow in relation to the intention and decision to purchase sustainable food products has not been widely discussed. The misalignment between theory and empirical data in previous studies has led to an unstructured and unsystematic understanding. Therefore, this study aims to explore the influence of Anticipated Warm Glow on the intention and decision to purchase sustainable food products more systematically. The research method used is a systematic literature review with 27 articles analyzed on the concept of anticipated. The results indicate (1) the level of Anticipated Warm Glow is greatly influenced by the empathy possessed by consumers; (2) the emergence of Anticipated Warm Glow is influenced by internal and external factors; (3) the Anticipated Warm Glow that has emerged in consumers will affect their intention and purchasing decisions for sustainable food products; (4) the concept of Anticipated Warm Glow can be implemented in developing communication and promotion strategies for sustainable.

Keywords: *anticipated warm glow, sustainable food, green product warm glow, consumption behavior.*

INTRODUCTION

Consumer awareness of social issues is currently increasing, heightening social influence on sustainable food consumption (Islam et al., 2024). Consumers are not only concerned about the quality and price, but they also consider the moral and emotional values that are attached to a product. Such as purchasing sustainable products and raising economic shopping behaviours that support a green environment (Zhao et al., 2024). The alteration in sustainable food consumption patterns appears from growing awareness of sustainable development, which aims to meet the present food needs without compromising the future (Masih et al., 2025). This circumstance boosts consumers to experience more positive emotions before making a purchase, which is frequently referred to as the phenomenon of Anticipated Warm Glow. The concept of Anticipated Warm Glow is assigned to the positive feelings and moral satisfaction experienced by consumers before engaging in sustainable consumption. Consumers would feel a motivation to choose environmentally friendly or healthy products, such as those that are from organic or recyclable materials, even if they cost more and higher (Cahyasa et al, 2025c). The Anticipated Warm Glow concept becomes more relevant because sustainable products in developed countries are influenced by the combination of environmental awareness, green identity, and social value, leading to more tangible movements.

Research on the Anticipated Warm Glow role in the purchase of sustainable products has demonstrated inconsistent results. Huber et al. (2023) show established that the level of Anticipated Warm Glow is determined by personal characteristics such as empathy and altruistic values. Nevertheless, other studies suggest that it is shaped more by situational factors and perceptions of sustainable product brands (Zhao et al., 2024). These contrasting allegations open up new study opportunities to clarify the levels that affect the intensity of the Anticipated Warm Glow in purchasing decisions, and which factors most heavily trigger this feeling. The inconsistency in past research likewise creates a gap for considering how individual character differences affect the level of Anticipated Warm Glow during the purchasing decision process. Some studies state a significant effect (Hartmann et al., 2012), while

others show a weaker effect influenced by other factors such as social norms and moral values (Lin et al., 2021). This also proves that the concept of Anticipated Warm Glow has not been widely enforced in industry as a basis for communication strategies that present a strategic chance for marketing campaigns. Based on this gap, the lack of systematic exploration of Anticipated Warm Glow in the context of sustainable food purchasing remains a challenge (Trinh, 2023). The concept itself is still debated, as it may sometimes lead to paradoxical outcomes such as increased waste generation (Doorn et al., 2021) or feelings of guilt (Erlandsson et al., 2016) while other studies highlight its positive impacts, such as enhancing economic value (Iweala et al., 2022) and emotional appeal (Abdullah et al., 2024). Therefore, a systematic approach is needed to review, organize, and synthesize existing studies to achieve a more coherent understanding of the role of anticipated warm glow. The purpose of this research, therefore, is to explore both the conceptual and practical implications of Anticipated Warm Glow on purchase intentions and decision making for sustainable food products, providing a structured and comprehensive view of the phenomenon.

RESEARCH QUESTIONS

To provide a more structured understanding of the role of Anticipated Warm Glow in sustainable food consumption, this study seeks to answer the following research questions:

1. RQ1: How does the level of Anticipated Warm Glow differ between individuals with high empathy and those with low empathy in their purchasing decisions?
2. RQ2: What are the key factors that influence the emergence of Anticipated Warm Glow among consumers who choose sustainable food products?
3. RQ3: How does Anticipated Warm Glow affect consumers' intentions and decisions to purchase sustainable food products?
4. RQ4: How can marketers and industry practitioners leverage the Anticipated Warm Glow in communication and promotional strategies to enhance consumer interest in sustainable food products?
- 5.

RESEARCH METHODS

This study employs the Systematic Literature Review (SLR) method to explore the influence of Anticipated Warm Glow in sustainable consumption behavior. The authors followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines to ensure that the review process was transparent, can be replicated, and scientifically sufficient (Page et al., 2021). Data were collected through systematic searches of peer-reviewed journal articles using two primary academic databases: ScienceDirect and Google Scholar. The keywords used included anticipated warm glow, organic buying decision, and sustainable food consumption. The inclusion criteria for article selection were as follows; (a) Journal articles written in English and published between 2020 and 2025, (b) Open access research studies, (c) Empirical research discussing the relationship between Anticipated Warm Glow and sustainable food products, and (d) Original research articles (not reviews or conceptual papers). Based on these criteria, 27 relevant studies were selected and analyzed. Figure 1 below illustrates the PRISMA 2020 flow diagram, which outlines the stages of the systematic review process from the initial search and screening to the inclusion of final studies in the analysis.

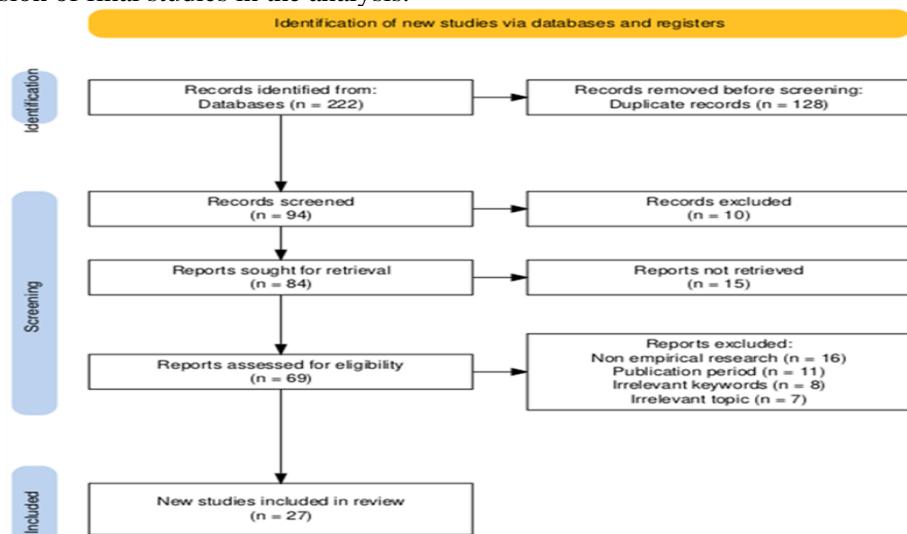


Figure 1. PRISMA Flowchart Search Method

RESEARCH RESULTS AND DISCUSSION

This study conducted a bibliometric analysis using the VosViewer application to perform initial screening and review, which can aid in the preliminary search for articles, as well as to assess the relevance of the scope, formulate research questions, and strengthen the research foundation. The main keywords from the papers successfully collected are as follows.

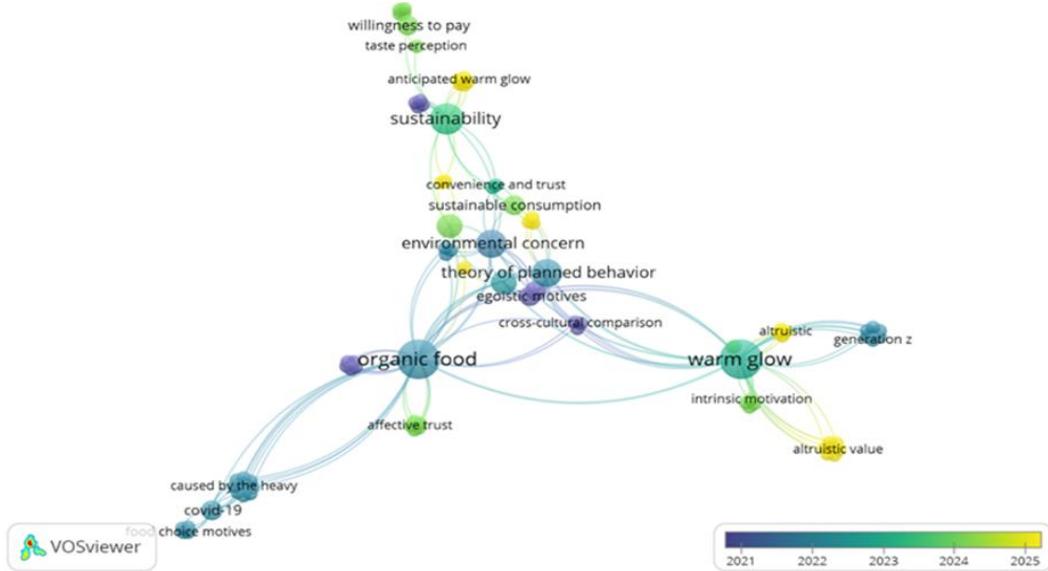


Figure 2. VosViewer Visualization

Based on the bibliometric analysis conducted using VOSviewer software (Figure 2), a keyword network visualization map for the period 2021 to 2025 was obtained. The bibliometric analysis results are divided into four main clusters that represent the research focus directions on the topic of Anticipated Warm Glow in the context of sustainable food consumption. Cluster 1, with the main keywords sustainability and consumer behavior, illustrates the close relationship between Anticipated Warm Glow emotions and sustainability-oriented purchasing behavior. Cluster 2, with the keywords environmental concern and behavioral models, explains the concept of Anticipated Warm Glow acting as an emotional mediator, bridging the influence of environmental concern on purchase intention or the intention to buy sustainable products. Cluster 3, using the keywords organic food and affective trust, indicates that trust in organic certification and the emotional drive that emerged during the COVID-19 pandemic play an important role in increasing consumer interest and preference for sustainable food products. Cluster 4, using the keywords altruistic motivation and generational trends, shows that Anticipated Warm Glow can strengthen moral commitment and ethical, environmentally responsible consumption behavior. The main clusters are divided into four, indicating that research on Anticipated Warm Glow in the context of sustainable food consumption is still fragmented and therefore requires systematic study. These results also indicate a conceptual difference between Anticipated Warm Glow and warm glow, which are distinct and do not directly overlap. The keyword Anticipated Warm Glow is related to sustainability and consumer behavior, meaning screening is understood as an emotion that arises as a potential future feeling, thus becoming a factor that influences the intention or decision to purchase sustainable food products. However, the keyword warm glow is in the cluster of altruistic value, intrinsic motivation, and Generation Z, which is understood as an emotion that arises after taking action, thereby fostering moral satisfaction or a sense of pride in supporting a sustainable environment. This cluster difference also explains that Anticipated Warm Glow focuses on the decision-making process in sustainable products, while warm glow focuses on altruistic values and intrinsic motivation, making it an important foundation for understanding the concept of Anticipated Warm Glow as a psychological factor affecting intentions and sustainable food consumption behavior. After understanding the concept of anticipated warm glow, 27 articles meeting the criteria were obtained. The articles were systematically reviewed to identify key findings relevant to the research focus on the Anticipated Warm Glow in purchasing decisions for sustainable food products. The following is a summary of the main findings from these 27 articles.

Table 1. Article Reviewed

No	Journal Title	Author and Year	Research Objectives	Sample	Important Findings
1.	Towards a holistic model of green consumerism	Ixora Javanisa Eunike, Andri Dayara, Silalahi, Do Thi Thanh Phuong, and Adi Prasetyo Tedjakusuma (2025)	Develop a holistic model of green consumers linking ethical obligation, collective potency, and environmental concern in sustainable purchasing behavior	400 Indonesian respondents	Green purchase intention is promoted by environmental concern, eco-friendly behavior, attitudes, and environmental intelligence
2.	Trust, convenience, and environmental concern in consumer purchase intention for organic food.	Gyan Prakash, Pankaj Kumar Singh, Anees Ahmad, and Gaurav Kumar (2023)	Identify factors influencing organic food purchase intention using TPB, utilizing environmental concern, convenience, and trust.	334 respondents in Delhi NCR, India.	Trust and environmental concern are the strongest and most significant factors.
3.	Understanding Indonesian consumers' intention to purchase organic food products: the moderating role of price sensitivity.	Ghaisa Marin Hartono, Alice Salendu, and Eka Gatari (2020)	Investigate consumer value perception and the role of price in organic food purchase intention.	203 respondents in Greater Jakarta	Emotional value and price significantly and positively influence purchase intention.
4.	Analysing consumer behavioural intention on sustainable organic food products: Case study on Indonesian consumers.	Mrihrahayu Rumaningsih, Abdullah Zailani, and Suyamto Kurniawati Darmaningrum (2022)	Analyzing the behavioral intention toward sustainable organic food products	913 Respondents in Indonesia	Environmental concern based on direct experience significantly and positively influences purchase intention.
5.	Decoding organic food buying intention: The interplay of health consciousness and perceived value among urban consumers in Malang.	Simon Napitupulu, Azriel Budi Setiawan, Neza Fadia, Novi Haryati, and Ainur Rochmat (2025)	Investigating the role of health consciousness and perceived value in making organic food purchase intention.	90 respondents in Malang, West Java, Indonesia.	All values affect purchase intention, excluding health consciousness.

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6.	Intention to re-consume organic food: Sensory attributes, egoistic motive, and warm glow in the extended TPB.	Dhika Cahyasita, Irham, and Jamhari (2021)	Examining the intention to re-consume organic food in Indonesia using TPB with sensory appeal, egoistic motives, and warm glow	337 respondents from Indonesia.	Egoistic motives and sensory appeal affected attitudes and intention to re-consume sustainable food.
7.	Exploring Warm Glow, Altruistic, and Egoistic Motives in Organic Food Consumers: A Descriptive Study in Indonesia.	Dhika Cahyasita (2025)	Assess attitudes, altruistic and egoistic motives, and warm glow in organic food consumption	219 female respondents in Indonesia.	Egoistic, altruistic motives, and a warm glow affected sustainable food consumption.
8.	Drivers of consumers' willingness to pay for fair trade food products: The role of positive and negative emotions.	Pilar Fernández Ferrín, Sandra Castro Gonzalez, Belen Bande, and Mercedes Galan Ladero (2024)	Exploring the mediating role of pride and guilt in willingness to pay for Fair Trade food	305 respondents in the <i>Basque Country</i> (Spain)	The relation between pride and guilt drives higher product valuation and willingness to pay
9.	Perceived Warm-Glow Effect on the Purchase Intention... Towards Selected Sustainable Water Bottles.	Emanuel Protacio, Lovern M Contez, Xyries C Laderas, Jenny Vieve P Potante, and Lucky Cederic D Guyamin (2025)	Investigating the warm glow effect on purchasing intention for sustainable food water bottles	385 respondents in Cavite, Philippines.	The Warm-glow constructs in values, beliefs, and norms correlate positively with TPB constructs and purchasing intention.
10.	How Warm Glow and Altruistic Values Drive Consumer Perceptions of Sustainable Meal-Kit Brands.	Yoon Jung Jang (2025)	Investigating how warm glow and altruistic values influence consumer perception of sustainable meal-kit brands	317 respondents who support environmental protection.	Warm glow and altruistic values significantly moderate the relationship between sustainable products and brand sustainability.
11.	Influence of Altruistic Motives on Organic Food Purchase: Theory of Planned Behavior.	Kirubaharan Boobalan, Nizhad Nawaz, Harindranath R.M., and Vijay Kumar Gajenderan (2021)	Analyzing how warm glow influences the TPB construct and organic food purchase intention.	692 respondents from India and 640 samples from the USA.	Warm glow significantly influences attitude, behavioral control, and subjective norms in India and the USA.

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12.	Effects of abstract and concrete communication on moral anticipations for food choices.	Dani Taufik, Raimo Rood, Hans Dagevos, Emily P Bowman, and Machiel J Reinders (2023)	Examining how framing communication about sustainability and healthy product benefits influences moral anticipation in upcycled food choices.	2103 respondents from the Netherlands.	Abstraction and benefit type influence anticipated warm glow, rising purchase intention.
13.	How Explicit Warm Glow Appeals Fail to Boost Pro-Environmental Behaviour.	Paul M. Lohmann, Elisabeth Gsottbauer and Sander van der Linden, and Andreas Kontoleon (2024)	Examine how warm glow appeals in campaigns to raise measurable pro-environmental behavior.	2,698 respondents from the UK.	Explicit warm glow appeals had no significant effect on donations or volunteer participation.
14.	Nudging green food: The effects of a hedonic cue, menu position, a warm-glow cue, and a descriptive norm.	Tommy Reinholdsson, Martin Hedesstrom, Emma Ejelov, Andre Hansla, Magnus Bergquist, and Asa Svenfelt, Andreas Nilsson (2022)	Examine the effectiveness of hedonic cues, menu positioning, warm-glow cues, and descriptive norms on vegetarian food choices.	136 burger restaurants respondents in Sweden	are spotting “green category” first on digital menus. Most effectively increased sustainable food sales.
15.	Self-proximity in augmented reality enhances consumer responses to green products.	Virginie Lavoye, Olivia Petit, Anssi Tarkiainen, and Jenni Sipila (2025)	Exploring how self-proximity in AR influences attitudes toward green products.	80 business school students in France and 246 respondents (avg. age 41)	<i>Self-proximity</i> gains warm glow feelings and supportive attitudes toward green products.
16.	Sustainability information, taste perception, and willingness to pay	Klaus G. Grunert, Han Seok Seo, Di Fang, Victoria J Hogan, and Rodolfo M Nagya Jr (2024)	considering how sustainability info via video influences moral satisfaction, taste perception, and willingness to pay for a coffee	222 peminum kopi reguler di AS	Sustainability info approximately increased moral satisfaction during both tasting sessions.
17.	Positive anticipated affective reactions increase pro-environmental behavior.	Camilla Stromback, Per A Andersson, Erkin Asutay, Hulda Karlsson Larsson, and Daniel Västfjall (2025)	Contribute experimental evidence that Anticipated Warm Glow promotes pro-environmental behavior	995 respondents in Sweden	Positive affective reactions from Anticipated Warm Glow necessarily increase pro-environmental behavior.

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18.	The food you can trust: The moderating role of age in the relationship between consumer values and organic food trust.	Tatiana Anisimova and Demetris Vrontis (2024)	testing how personal values and ages reasonably trust in organic food	1011 organic respondents in Australia	trust and age positively cautious the relationship between self-symbiotic and security values and organic food trust.
19.	The influential factors on consumer purchase intention for organic food in China.	Haichuan Ding, Haiyun Li, and Xinyi Liu (2021)	Investigate what factors influence organic food purchase intention in China	77 college students in China	Four variables tested were significantly related to organic food purchase intention.
20.	The Role of Warm Glow and Temporal Framing on Plant-Based Meat Purchase Intention.	Samuele Fra, Ilona de Hooge, Maede Amini, and Claudio Soregaroli (2023)	Exploring the effect of temporal framing and the mediating role of social or environmental contribution and personal satisfaction.	251 respondents (avg. age 25-30)	Manipulating temporal framing (short-term or long-term) had no significant influence on plant-based meat purchase intention.
21.	The effect of green self-identity on perceived image, warm glow, and willingness to purchase from a new generation perspective towards eco-friendly restaurants.	Patcharaporn Mahasuweerachai, and Chompoonut Suttikun (2022)	Investigating how green self-identity influences perceived green image, warm glow, and willingness to purchase eco-friendly restaurant offerings	388 respondents aged 18 - 25 in Khon Kaen, Thailand.	<i>Green Self-Identity</i> strongly influences Gen Z consumer behavior and purchase intention.
22.	Warm glow and consumers' valuation of ethically certified products.	Sarah Iweala, Achim Spiller, Rodolfo M Nagya Jr., and Dominic Lemken (2022)	Testing the effect of warm glow on willingness to pay for fair trade and Rainforest Alliance products	816 auction respondents in Germany.	Warm Glow affects willingness to pay for ethically certified products positively.
23.	The Role of Life Satisfaction and Locus of Control in Changing Purchase Intention for Organic and Local Food during The Pandemic	Corinna Hempel and Jutta Roosen (2022)	Exploring the ecological paradigm, environmental collective efficacy, environmental knowledge, and the influence on purchase intention.	Not explicitly stated	The new ecological paradigm, collective efficacy, and environmental knowledge influence purchase intention.

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No	Journal Title	Author and Year	Research Objectives	Sample	Important Findings
24.	Introducing Warm Glow as a Key Psychological Motive on Consumer Willingness to Consume Organic Food: A Study of Ethical Consumption Behaviour	Dhika Cahyasita, Irham, and Jamhari (2025)	Investigating environmental self-identity's influence on young consumers' purchase intention.	Not explicitly stated	Environmental self-identity's influence on young consumers' purchase intention to buy green products.
25.	Buying Organic Food as Sustainable Consumer Decision-Making Behaviour: Cognitive and Affective as Drivers of Purchase Intention Toward Environmentally Friendly Products	Elvira Nica (2020)	studying how self-concept affects eco-friendly behavior related to individuals' moral norms	not explicitly stated	Eco-friendly behavior is affected by personal motivation linked to self-concept and moral satisfaction.
26.	Green but Not Altruistic Warm Predicted Conservation Behaviour	Lili Jia and Sander van der Linden (2020)	testing predictors of pro-environmental behavior	341 respondents	Environmental concern orientation is a highly predictive factor of four pro-environmental measures
27.	Warm Feelings Can Promote Green Behavior	Jennifer Jerit, Hwayong Shin, and Jason Barabas (2024)	Examine how experienced warm glow strengthens measurable pro-environmental behavior.	1175 respondents	<i>Warm glow's role in strengthening future sustainable behavior is weak, with only a 0.41% mediated effect.</i>

DISCUSSION

Differences in the Level of Anticipated Warm Glow between Individuals with High Empathy and Low Empathy in Purchase Decisions

Consumers with high levels of empathy will experience a stronger Anticipated Warm Glow because it is based on moral, altruistic, and ethical values in sustainable food product purchasing decisions. Consumers with a prosocial orientation and a strong moral identity are more easily touched emotionally by sustainability related information, making it easier for them to feel the Anticipated Warm Glow (Jang, 2025). Consumers who are environmentally conscious and care about communal well being show increased willingness to pay and positive evaluations after experiencing the Anticipated Warm Glow (Grunert et al., 2024). Hempel and Roosen (2022) conclude consumers with high levels of empathy combined with pro-environmental understanding further encourage the intention to purchase sustainable food products. The best part is that consumers can also experience an intense Anticipated Warm Glow caused by understanding altruistic values by viewing the purchase decisions of sustainable food products as ethical actions (Cahyasita, 2025a).

However, consumers with low empathy result in a weak or absent Anticipated Warm Glow and still consider utilitarian values. Purchasing decisions are based on rational considerations such as price, convenience, quality, risk, and functional product perception (Ding et al., 2021). Consumers who use utilitarian values are not sensitive to emotional messages, thus failing to trigger an anticipated warm glow. In addition, low empathy can also be driven by hedonic values, which cause changes in consumer choice structures (Reinholdsson et al., 2022). However, the Anticipated Warm Glow in low-empathy consumers is situational and can be stimulated with effective communication. Emotion-based communication (Lavoye et al., 2025), emphasizing good values (Fra et al., 2023), and self-proximity (Jerit et al., 2024) can activate actual Anticipated Warm Glow in purchasing decisions for sustainable food products. Therefore, differences in the level of Anticipated Warm Glow depend not only on empathy but also on the external stimuli provided. For a detailed discussion, see the application of Anticipated Warm Glow in communication and promotional strategies. Differences in the level of Anticipated Warm Glow between high and low empathy consumers are influenced not only by psychological characteristics but also by the emotional stimuli and sustainability information provided. Therefore, it is important to understand the factors that directly drive the emergence of the Anticipated Warm Glow in consumers of sustainable food products. The next analysis will elaborate on psychological, cognitive, emotional, and other elements that have been proven to shape the anticipated warm glow.

Factors Influencing the Emergence of Anticipated Warm Glow in Consumers When Choosing Sustainable Food Products

The feeling of Anticipated Warm Glow arises through a complex psychological process and is not determined by a single factor. Factors that influence the emergence of Anticipated Warm Glow can be categorized into two; internal and external factors. This is important because in each factor, Anticipated Warm Glow is interconnected and mutually supportive. Internal factors are divided into several dimensions, such as psychological, knowledge based, and emotional. Consumers' psychology, by adhering to altruistic values, influences the intention to purchase organic food due to moral satisfaction before the purchase (Boobalan et al., 2021). Hempel and Roosen (2022) show in human psychology, it is also integrated with the mind in the consumer's belief that what is consumed is their personal responsibility, thereby achieving a level of life satisfaction and being able to rationalize purchasing decisions. Psychological factors are also driven by a sense of morality and social responsibility, which can generate an Anticipated Warm Glow in sustainable food (Jang, 2025). A sense of responsibility also brings about an ethical feeling that makes the Anticipated Warm Glow stronger before consuming organic food (Cahyasita, 2025). This allows the Anticipated Warm Glow to strongly influence purchasing decisions as a feeling of contribution to the environment and society.

Internal factors in the decision to purchase organic food products are also based on aspects of perception. Anisimova and Vrontis (2024) show consumers' perception of environmental and ethical benefits, grounded in their personal judgments, enhances positive moral trust before purchase, which can trigger the emergence of Anticipated Warm Glow. In sustainable food products that have already shaped consumer perceptions based on perceptions of good quality, ensured safety, and health, an Anticipated Warm Glow can emerge (Ding et al., 2021). In addition, consumer perceptions of social and environmental benefits are correlated with consumers' cognitive understanding, which influences the way to evoke the Anticipated Warm Glow (Ferrin et al., 2024). Perception becomes a good driving factor in increasing consumers' willingness to pay for sustainable food products (Grunert et al., 2024). However, among the many studies showing that perception functions as a sufficient interpretive framework to make consumers want to purchase sustainable products, perception is also shaped by the basis of consumers' emotional feelings. Emotional factors, intertwined with affective feelings and pride in pro-environmental behavior, can escalate the activation of Anticipated Warm Glow (Stromback et al., 2025).

Affective emotional feelings can enhance perceptions of sustainable food products, increasing the likelihood of the Anticipated Warm Glow (Jang, 2025). Emotional factors can also be progressively manipulated through temporal framing in the form of messages, thereby enhancing the chances of the Anticipated Warm Glow (Fra et al., 2023). In terms of negative emotions, they are also effective in increasing the emergence of Anticipated Warm Glow by appealing to egoistic values that can encourage consumers to purchase sustainable food products (Cahyasita et al., 2021d). External factors act as stimuli, which have been previously discussed, in activating the anticipated warm glow. Reinholdsson et al. (2022) conclude the positioning and description of a menu can increase consumers' intention to choose sustainable food by enhancing Anticipated Warm Glow. External stimuli can also take the form of messages that explain green behavior (Jerit et al., 2024). Concrete messages are more effective in increasing the emergence of anticipated warm glow, as proven with upcycled food products (Taufik et al., 2023). By understanding

the internal and external factors that can activate the Anticipated Warm Glow, concrete communication and marketing strategies can be developed for sustainable food products.

The Influence of Anticipated Warm Glow on the Intention and Purchase Decision of Sustainable Food Products

Positive feelings that arise from within consumers play an important role in shaping Anticipated Warm Glow and influencing purchase intentions and decisions for sustainable products. Consumers who have a love for the environment tend to experience moral satisfaction and a sense of pride when making purchases considered to bring social and environmental benefits (Stromback et al., 2025). Mahasuweerachai and Suttikun (2022) show trust in the brand also reinforces these feelings because consumers feel that their choices reflect their moral values. Additionally, confidence in product safety provides a sense of reassurance that adds emotional significance to purchasing decisions (Ferrin et al., 2024). High altruistic values make individuals more sensitive to sustainability issues and motivate them to engage in more ethical consumption behaviors (Cahyasita, 2025a). This approach emphasizes that Anticipated Warm Glow, when supported by positive internal factors and external strategies, can become an innovative marketing tool that builds an emotional connection between consumers and brands and promotes sustainable behavior (Protacio et al., 2025). In addition, pride and moral responsibility become strong drivers for the emergence of Anticipated Warm Glow. Individuals with a future oriented mindset and concern for future generations will see sustainable purchasing as a form of long term contribution to social good (Taufik et al., 2023). Environmental concern also strengthens the emotional significance of purchasing actions, as individuals feel their actions help maintain the balance of nature (Jang, 2025). Self proximity, or personal closeness to environmental issues, allows consumers to feel a deeper personal connection with eco friendly actions (Boobalan et al., 2025). Strong moral values make the purchasing experience not just an economic transaction, but a reflection of an ethical self identity (Grunert et al., 2025).

Nonetheless, Anticipated Warm Glow cannot stand alone in influencing purchasing decisions. Feelings of guilt can indeed trigger purchase intentions, but the emotional pressure they create often diminishes moral comfort (Erlandsson et al., 2016). On the other hand, overly egoistic motivation that emphasizes self image causes purchasing decisions to become symbolic and less sincere (Doorn et al., 2021). Some studies have found that the effect of Anticipated Warm Glow also depends on individual characteristics and the social norms prevailing in the consumer environment (Hartmann et al., 2012). Moral values also determine how strong Anticipated Warm Glow can influence purchase intentions (Lin et al., 2021). However, amidst these challenges, some studies also highlight the positive side of Anticipated Warm Glow, which can enhance consumer loyalty when brand communication strategies are executed authentically and aligned with sustainability values (Iweala et al., 2022).

In marketing practice, the Anticipated Warm Glow can be leveraged through strategies that emphasize moral values, social impact, and environmental contributions to the environment, as this approach can evoke positive feelings while also strengthening purchase intentions (Protacio et al., 2025). Technologies such as Augmented Reality (AR) also play a role in helping consumers understand the origin of products and the moral stories behind them, thereby increasing engagement with environmental issues (Taufik et al., 2023). Product displays featuring eco friendly labels and advertisements highlighting ethical values can foster moral satisfaction after purchase (Cahyasita et al., 2025b). These efforts strengthen the alignment between personal values and consumption behavior (Iweala et al., 2022), while also building emotional loyalty and trust in the brand (Boobalan et al., 2025). Marketing strategies that continuously provide information about the social and environmental benefits of products can enhance Anticipated Warm Glow, as consumers associate purchases with a sense of pride and long term contribution to social good (Lohmann et al., 2024).

Utilizing Anticipated Warm Glow in Sustainable Communication and Promotion Strategies to Increase Interest in Sustainable Food Products

The food product industry has not widely utilized the concept of Anticipated Warm Glow due to limited understanding and explanation. In fact, Anticipated Warm Glow can be used as a strategy to influence consumers' psychology toward product purchases (Lohmann et al., 2024). The industry can start building trust in sustainable food products, turning it into a manifestation of increasing product purchasing power. Consumer trust in sustainable food products is the strongest and most significant factor, with around 80% in the intention to purchase organic food (Prakash et al., 2023). Building trust in sustainable food begins with providing a sense of safety regarding the products as the foundational step. Labeling products as certified sustainable can increase sustainable food purchases because consumers feel secure about products that have certification (Reinholdsson et al., 2022).

Trust can also be built through a communication pattern that emphasizes self benefit by reinforcing elements of self interest to trigger pro social behavior (Iweala et al., 2022). However, this must also be supported by personal aspects such as self concept, norms, morals, and knowledge of the environment (Nica, 2020). In addition, to emphasize the element of self benefit, a strong environmental self identity is needed to foster high empathy that can influence purchasing decisions (Cahyasita et al., 2025b). To enhance environmental self-identity, self proximity is required, based on the good benefits that have been experienced, similar to building testimonies (Jerit et al., 2024). Mahasuweerachai and Suttikun (2022) show concrete evidence shows that well utilized environmental self identity communication patterns can increase purchases at eco friendly restaurants. Furthermore, environmental self identity communication patterns can influence young people to buy sustainable products. (Cahyasita et al., 2025b). The communication pattern of environmental self identity can be directed towards a sense of pride in being part of an environmentally friendly community, such as fair trade products, so that a person feels proud to be part of that group (Ferrin et al., 2024).

Marketers' communication patterns can also be directed to emphasize that emotional feelings contribute to a sustainable environment. Communication using positive affective feelings, such as "enjoy the good feeling in your heart and on the planet," and modeling environmentally friendly behavior can enhance purchasing decisions for sustainable food products (Stromback et al., 2025). To strengthen consumer emotional feelings, marketing communication is integrated with existing values, beliefs, and norms (Protacio et al., 2025). Affective communication patterns can also be combined with communication that evokes pride because it supports the environment and ethical behavior, thus emphasizing strong emotional feelings (Ferrin et al., 2024). In addition, communication patterns that highlight affective feelings are also combined with digital technology, which can transform product purchases into touching narrative experiences, such as resource savings or carbon emission reductions (Lavoye et al., 2025). And affective communication cannot be directed at emphasizing the benefits of time, such as being promised future advantages, because it does not influence future product purchases (Fra et al., 2023).

Promotional techniques can be strategically implemented in the arrangement of menus in every restaurant. Choosing unique menu names and emphasizing effective language, such as "Happy Eggs," with descriptions of eggs that ensure the welfare of animals and local farmers can boost the sales of fair trade products (Iweala et al., 2022). This technique also aligns with a strong environmental self-identity communication pattern, making it more attractive for consumers to make a purchase (Cahyasita et al., 2025b). The descriptions placed on the menu can be used as a medium to promote verbally in the form of product knowledge that can be continuously advertised, thereby serving as a stimulus for purchasing sustainable food products (Grunert et al., 2025). Promotion techniques can also be carried out by placing sustainable category menus at the top, thereby increasing the purchase of sustainable food products (Reinholdsson et al., 2022). Among all communication methods and promotion techniques, they must also be implicit because explicit communication does not affect the intention to purchase sustainable food products (Lohmann et al., 2024). Therefore, understanding the concept of Anticipated Warm Glow in sustainable food products can be applied in developing communication and promotion strategies for sustainable food products, making it beneficial for the industry.

CONCLUSION

The results of the four research questions indicate that Anticipated Warm Glow appears differently in each individual, but in general, it remains an important driver in purchasing sustainable food products. Anticipated Warm Glow is influenced not only by empathy but also by psychological factors such as self-beneficial motives (the desire to gain personal benefits), environmental self-identity (identifying oneself as someone who cares about the environment), and self-proximity (emotional closeness to environmental issues). When moral values and personal experiences are perceived as relevant, consumers are more likely to feel pride and emotional satisfaction. However, for consumers who are more focused on utilitarian values or practical benefits such as price, quality, and convenience, Anticipated Warm Glow tends to be less strong unless it is driven by marketing communications that resonate with them. Overall, Anticipated Warm Glow has been shown to influence purchase intentions and decisions. Consumers who care about the environment, have a sense of moral responsibility, and a long-term orientation generally experience a stronger Anticipated Warm Glow. Positive emotions such as pride and moral satisfaction make purchasing sustainable products feel more meaningful, rather than just a transaction. However, Anticipated Warm Glow does not always work consistently. If marketing messages overly pressure guilt or focus too much on self-image, the effect can diminish and make consumers feel uncomfortable. Individual characteristics, social norms, and moral values also determine how strongly Anticipated Warm Glow influences purchase intentions.

Although Anticipated Warm Glow can increase consumer interest and loyalty by evoking positive feelings and a sense of pride after purchasing sustainable products, its effectiveness does not always run smoothly. The industry can maximize Anticipated Warm Glow through appropriate communication strategies, such as conveying moral values, social stories, product safety assurances, the use of technologies like Augmented Reality (AR), certified labels, and heart-touching ethical messages. However, behind this potential positive effect, Anticipated Warm Glow can be less effective when consumers focus more on practical aspects such as price or immediate benefits, when guilt triggers purchase intentions but feels burdensome, or when the motivation for purchasing is too self-image oriented. In addition, the influence of Anticipated Warm Glow is greatly affected by personal character, social norms, and the moral values upheld by consumers. With authentic communication that aligns with the sustainability values believed by consumers, Anticipated Warm Glow is still able to enhance loyalty and shape more genuine purchasing decisions.

In addition to communication, the right promotional strategy can also strengthen Anticipated Warm Glow. Choosing effective menu names, placing sustainable categories in strategic positions, and using product descriptions that highlight ethical values can increase attention and purchases. The environmental self-identity approach, which makes consumers feel like part of a group that cares about the environment, has also proven effective, especially for young consumers. However, the message conveyed must be implicit and natural, as explicit communication does not significantly influence purchase intentions. Overall, these four RQs confirm that Anticipated Warm Glow possesses significant psychological potential and can serve as a foundation for developing sustainable marketing strategies. When moral values, self-identity, and relevant communication are integrated, Anticipated Warm Glow is capable of building emotional attachment, enhancing trust, and encouraging more consistent purchasing decisions. With this understanding, the industry can design communication and promotional strategies that are more effective in strengthening interest in sustainable food products.

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