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Cognitive Fit Theory in Marketing Communications: an Innovative Dimension of Food Security and Sustainable Development

Abstract. Introduction. The escalation of global food security challenges caused by climate change, resource constraints, and shifting consumer expectations requires a rethinking of traditional approaches to marketing communications in the agricultural sector. Under these conditions, marketing increasingly performs not only a promotional function but also serves as an instrument for building societal trust in the food system as a whole. However, consumers with a degree of distrust perceive a considerable share of sustainability-focused marketing narratives used by food producers. This underscores the need for a theoretical understanding of cognitive fit as a mechanism capable of explaining and predicting the effectiveness of marketing communications.

Purpose. The purpose of the article is to reveal the theoretical essence of cognitive fit as a conceptual basis for designing marketing communications in the agricultural sector and to substantiate its innovative potential for addressing the challenges of food security and sustainable development.

Results. The essence of cognitive fit theory has been disclosed as a state of consistency between the values declared by a producer, the objective characteristics of a product, and value orientations of the target consumer audience; violation of this consistency generates cognitive dissonance, manifested in declining brand trust and growing skepticism toward sustainability claims. A conceptual model for designing marketing communications on the basis of cognitive fit has been proposed, comprising four blocks: diagnostic (analysis of the target audience's cognitive schemas), narrative alignment (matching the message to actual product characteristics), communication (selecting channels and formats suited to audience cognition), and fit monitoring (assessing consumer trust and loyalty as indicators of achieved cognitive fit).

Conclusions. Cognitive fit theory constitutes a productive methodological basis for analyzing and designing marketing communications in the agricultural sector. Its application makes it possible to explain the mechanisms underlying consumer trust in sustainability narratives, to identify sources of cognitive dissonance, and to develop practical recommendations for improving the effectiveness of marketing activities of agricultural enterprises. Further research should focus on developing empirical tools for assessing the level of cognitive fit in marketing communications and its impact on food security indicators at the regional and national levels.

Keywords: cognitive fit, marketing communications, food security, sustainable development, consumer perception, sustainability narratives.

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Теорія когнітивної відповідності у маркетингових комунікаціях: інноваційний вимір продовольчої безпеки та сталого розвитку

Анотація. У статті досліджено теоретико-методологічний потенціал теорії когнітивної відповідності як інструменту аналізу та проектування маркетингових комунікацій у сфері продовольчої безпеки та сталого розвитку. Обґрунтовано, що ефективність сучасних маркетингових наративів, спрямованих на просування продукції аграрного сектору, значною мірою залежить від ступеня узгодженості (відповідності) між декларованими виробником цінностями сталості, очікуваннями споживача та реальними атрибутами продукту. Розкрито сутність когнітивного дисонансу та когнітивної відповідності як парних категорій, що визначають характер сприйняття споживачем маркетингової інформації. Проаналізовано механізми впливу семантичних конструкцій наративів сталості на формування довіри та лояльності споживачів. Визначено практичні рекомендації щодо адаптації маркетингових стратегій підприємств агропродовольчого сектору з урахуванням принципів когнітивної відповідності.

Ключові слова: когнітивна відповідність, маркетингові комунікації, продовольча безпека, сталий розвиток, споживче сприйняття, наративи сталого розвитку.

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Formulation of the problem. The increasing exacerbated by climate change, resource scarcity, complexity of global food security challenges, geopolitical instability and changing consumer

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expectations, is transforming the role of marketing communications in the agri-food sector. Today, marketing is no longer limited to promoting products or increasing sales. It has become an important mechanism for building consumer trust, communicating sustainability commitments and building confidence in food systems [1]. In this context, the effectiveness of marketing communications increasingly depends on whether consumers perceive corporate messages as credible, relevant and consistent with their own values and experiences.

Despite the increasing emphasis on sustainability in marketing strategies, many communication campaigns fail to achieve the desired effect. Consumers are exposed to an increasing number of environmental and social claims, but they often question their credibility. When sustainability messages do not align with consumers' prior experiences, beliefs, or observed business practices, they create cognitive dissonance, reducing trust in both the company and its products [2]. Moreover, the widespread use of vague or exaggerated sustainability claims, commonly referred to as greenwashing, makes it difficult for consumers to distinguish between truly responsible businesses and those that use sustainability merely as a promotional tool [3].

These events have significantly reduced the information value of marketing communications in the agri-food sector. Instead of helping consumers make informed choices, communication overload and conflicting narratives about sustainability often increase uncertainty and scepticism. As a result, the ability of marketing to promote food security and sustainable consumption depends not only on the quality of the information provided, but also on the extent to which this information is consistent with consumers' cognitive structures, expectations, and value systems [4].

Against this background, the theory of cognitive fit offers a promising conceptual framework for explaining how consumers process sustainability-related information and why certain marketing messages are perceived as more credible and persuasive than others. Understanding the mechanisms of cognitive fit can help explain consumer responses to sustainability communications, improve the effectiveness of marketing strategies, and support the development of more transparent and trustworthy communication practices that contribute to both food security and sustainable development.

Analysis of recent research and publications. The increasing complexity of consumer behavior in sustainable markets has stimulated extensive research into the cognitive, emotional, and technological factors that determine the effectiveness of marketing communications. Recent research shows that consumers no longer evaluate food products solely on the basis of price and quality; instead, purchasing decisions are increasingly influenced by sustainability narratives, trust, perceived authenticity, and cognitive fit between marketing messages and personal values.

A significant body of literature focuses on the cognitive mechanisms underlying consumer decision-making. S. Baishakhy et al. [1] developed a multidimensional behavioral model demonstrating that purchase intentions for geographical indication-certified agri-food products are formed through the interaction of cognitive, emotional, and social determinants. Their findings highlight that consumer decisions are dynamic and cannot be explained exclusively by traditional economic models. Complementing this perspective, S. Vig and T. Tewary [9] showed that eco-consciousness and self-image congruence significantly enhance consumers' willingness to purchase environmentally responsible products, emphasizing the importance of value congruence in sustainable marketing.

Digital transformation has considerably expanded the possibilities for studying cognitive responses to marketing communications. N. Rehman et al. [6] found that artificial intelligence can strengthen purchase intentions by creating emotionally resonant nostalgic experiences, illustrating the growing role of algorithm-driven personalization in consumer engagement. Similarly, Y. Kuo et al. [7] demonstrated that the effectiveness of social media advertising depends on message appeals, humor, and communication style, while M. Saravanan et al. [12] confirmed that interactions on social media platforms significantly influence online purchasing decisions among younger consumers. These findings collectively indicate that digital marketing effectiveness increasingly relies on consumers' cognitive processing of personalized and interactive content.

From the perspective of organizational marketing capabilities, M. Bağış et al. [10] argued that managerial attention and cognitive styles represent important microfoundations of supply chain agility and sustainable marketing performance. Their research extends the concept of cognition beyond individual consumers by demonstrating that cognitive processes also influence strategic marketing decisions and organizational adaptability.

Despite the considerable advancement of research in sustainable consumer behavior, existing studies remain fragmented. Most investigations focus on individual determinants of consumer behavior, including emotions [6], trust [4, 8], visual attention [5], semantic characteristics of narratives [2, 3], digital communication [7, 12], immersive technologies [11], or environmental values [9]. Although these studies substantially improve the understanding of specific aspects of consumer decision-making, they rarely integrate these factors within a unified theoretical framework capable of explaining how consumers cognitively evaluate sustainability-related marketing communications.

Addressing this gap, this study conceptualizes cognitive fit theory as an integrative framework for sustainable marketing. It aims to explain how alignment between sustainability narratives, consumer cognitive expectations, and communication channels can enhance

consumer trust, encourage responsible purchasing behavior, and enhance the contribution of marketing communications to food security and sustainable development.

Formulation of research goals. The aim of this article is to reveal the theoretical essence of the theory of cognitive fit as a conceptual framework for developing marketing communications in the agricultural sector and to substantiate its innovative potential for solving the problems of food security and sustainable development. The study aims to explain how cognitive fit between sustainability narratives, objective product characteristics and consumer value orientations affects the formation of trust, consumer perception and the effectiveness of marketing communications.

To achieve this goal, the study aims to achieve the following objectives:

- to explore the theoretical foundations of cognitive fit theory and substantiate its applicability to modern marketing communications;
- to conceptualize cognitive fit as a mechanism that aligns sustainability narratives, product characteristics, and consumers' cognitive structures and value orientations;
- to develop a conceptual model for designing marketing communications based on cognitive fit theory, including audience cognition, narrative alignment, communication strategies, and compliance monitoring.

Presentation of the main research material. The increasing integration of sustainability principles into agri-food markets has fundamentally changed the role of marketing communications. While traditional marketing has focused primarily on informing consumers about product attributes and stimulating demand, modern marketing communications increasingly serve as a

strategic tool for shaping consumer perceptions, reducing information asymmetries, and building trust in food systems. This transformation is particularly important in the context of food security, where consumers are expected to make informed purchasing decisions not only based on price and quality, but also on the environmental, social, and ethical characteristics of food products.

However, the increase in the volume of information related to sustainability has not necessarily improved the effectiveness of communications. On the contrary, consumers are often confronted with numerous environmental claims, certification labels and corporate narratives about sustainability, which vary significantly in credibility, transparency and information value. The widespread dissemination of unverified or exaggerated sustainability claims has contributed to the growth of skepticism about marketing communications and has reduced consumer trust in sustainability-oriented brands. Therefore, the effectiveness of marketing communications depends not only on the amount of information provided, but also on the extent to which this information corresponds to consumers' cognitive expectations and prior knowledge (Table 1).

To provide preliminary empirical support for the proposed conceptual framework, a field survey was conducted to examine consumers' perceptions of sustainability-oriented marketing communications and the factors influencing their trust in sustainability claims. The survey was conducted from April 5 to 10, 2026 among customers of large retail chains "Silpo", "ATB" and "MIDA", located in Mykolaiv, Ukraine. All consumers were eligible to participate, regardless of age, gender, education or other socio-demographic characteristics. Using the simple random sampling method, 100 respondents were recruited.

Table 1 Results of a survey of consumers of sustainability-oriented marketing communications

Statement	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)
I frequently notice sustainability-related claims on food packaging and advertising.	3	6	12	49	30
I trust sustainability claims made by food producers.	11	28	26	27	8
It is difficult to distinguish genuine sustainability claims from greenwashing.	4	10	18	43	25
I pay attention to environmental labels and sustainability certifications when purchasing food products.	5	12	20	42	21
Sustainability messages are more convincing when supported by objective evidence (certification, traceability, QR codes, etc.).	2	4	10	46	38
I trust brands whose sustainability messages correspond to my personal values.	3	8	17	44	28
Inconsistency between marketing messages and actual business practices reduces my trust in a brand.	1	5	11	48	35
Transparent communication increases my willingness to purchase food products.	2	6	13	47	32
Personalized digital communication improves my understanding of sustainability information.	5	11	23	40	21
I am more likely to purchase products whose sustainability information is clear, credible, and consistent.	2	4	9	45	40

Source: developed by the author based on survey conducted among consumers of retail chains Silpo, ATB, and MIDA (Mykolaiv, Ukraine), April 5–10, 2026.

These developments justify the use of cognitive fit theory as a conceptual framework for explaining the effectiveness of communication in sustainable marketing. It states that information is processed more effectively when its presentation is consistent with the cognitive structures that people use in decision-making. In marketing communications, cognitive fit can be understood as the degree of congruence between the sustainability message conveyed by the manufacturer, the objectively verified characteristics of the product, and the cognitive schemas, beliefs, and value orientations of consumers.

The questionnaire was designed to assess consumers' awareness of marketing communications related to sustainability, their level of trust in environmental and social claims, their perception of greenwashing, and the extent to which marketing messages are consistent with their values, expectations, and prior experiences. These dimensions reflect the core components of cognitive fit theory, which states that communication effectiveness depends on the consistency between sustainability narratives, objectively verified product characteristics, and consumers' cognitive structures.

The survey results show that sustainability-related information is highly visible in today's food market, with 79% of respondents agreeing or strongly agreeing that they regularly notice sustainability claims in marketing communications. However, consumer trust remains relatively low: only 35% expressed confidence in manufacturers' sustainability claims, while 39% reported distrust. This finding confirms that increased

communication intensity does not automatically lead to greater communication effectiveness.

The vast majority of respondents (68%) indicated that it is difficult to distinguish genuine sustainability initiatives from greenwashing, highlighting the growing problem of information overload and declining trust in sustainability communications. At the same time, respondents clearly preferred evidence-based communications: 84% agreed that sustainability claims are more credible when they are backed up by objective verification mechanisms, such as certification, traceability systems or QR codes.

The survey also provides empirical support for the concept of cognitive fit. Over 72% of respondents said they trust brands whose sustainability messages align with their own values, while 83% indicated that inconsistencies between marketing claims and actual business practices reduce their trust in a brand. Additionally, 85% reported a greater willingness to purchase products when sustainability information is perceived as clear, reliable, and internally consistent.

Unlike traditional communication models that concentrate on message transmission, cognitive fit emphasizes the quality of the relationship between information and consumer cognition. Marketing communication becomes effective not because consumers simply receive information but because they perceive it as coherent, credible, and consistent with their existing knowledge and personal values. When such consistency exists, consumers experience cognitive confirmation, which increases trust, facilitates information processing, and positively influences purchasing intentions. Conversely, inconsistency between

marketing claims and consumers' observations creates cognitive dissonance, generating skepticism, reducing perceived credibility, and weakening brand loyalty. From this perspective, cognitive fit may be defined as a multidimensional construct comprising three interconnected dimensions: informational fit, reflecting the consistency between sustainability claims and objective product characteristics; value fit, representing the alignment between corporate sustainability values

and consumers' personal beliefs and ethical orientations; communication fit, describing the correspondence between communication formats, channels, and consumers' preferred ways of processing information.

Building upon these theoretical premises, a conceptual model of marketing communications based on Cognitive Fit Theory is proposed (Figure 1). The model consists of four sequential and interrelated components, followed by the component of outcomes.

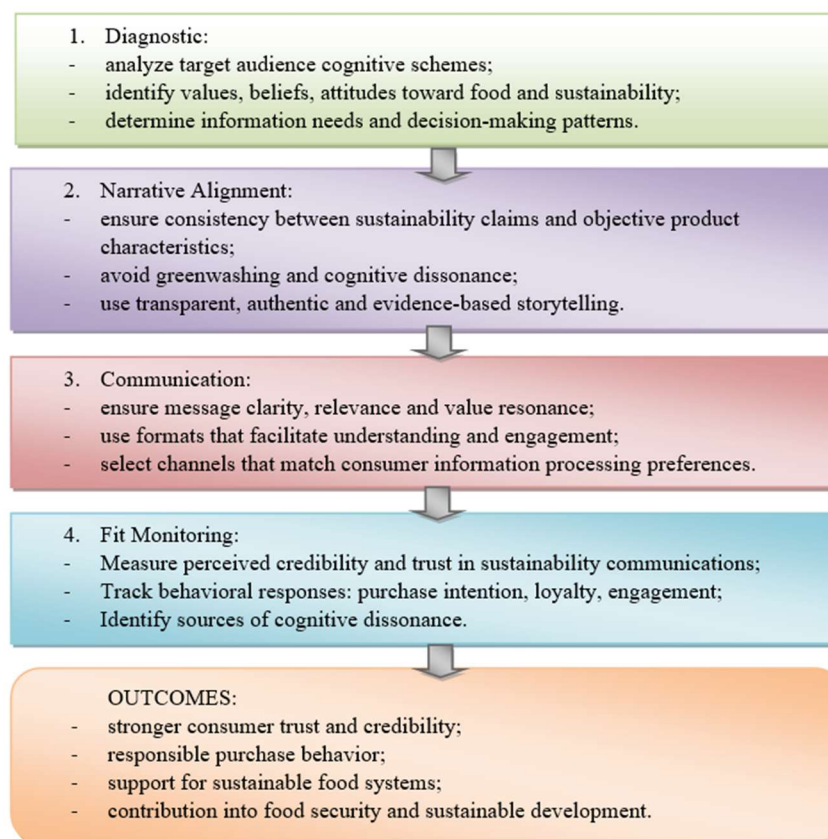


Figure 1 – Conceptual Model of Marketing Communications Based on Cognitive Fit Theory

Source: developed by the author.

The diagnostic component focuses on identifying consumers' cognitive schemas, sustainability values, information needs, and behavioral expectations. This stage requires the application of consumer research methods, behavioral analytics, semantic analysis, and digital monitoring to understand how different consumer segments interpret sustainability-related information.

The narrative alignment component ensures consistency between sustainability messages and objectively verifiable product characteristics. Marketing narratives should accurately reflect production technologies, environmental performance, product traceability, certification systems, and social responsibility practices. At this stage, communication shifts from persuasive rhetoric toward evidence-based sustainability storytelling.

The communication component concerns the selection of communication channels and message

formats that correspond to consumers' cognitive preferences. Digital platforms, social media, interactive product labels, QR codes, augmented reality technologies, and personalization enable firms to adapt sustainability information to different consumer groups, thereby increasing communication effectiveness.

Finally, the fit monitoring component evaluates the degree to which cognitive fit has been achieved. Consumer trust, perceived credibility, brand loyalty, engagement with sustainability information, and behavioral responses constitute the principal indicators for assessing communication effectiveness. Continuous monitoring enables organizations to identify emerging cognitive dissonance and adjust communication strategies accordingly.

The proposed conceptual framework suggests that marketing communication should be considered as a dynamic process of achieving cognitive correspondence

rather than merely transmitting information. The quality of sustainability communication depends on maintaining coherence among producers' actions, communicated narratives, and consumers' interpretations. This perspective substantially extends traditional approaches to marketing communications by incorporating cognitive mechanisms into the design and evaluation of communication strategies.

The application of Cognitive Fit Theory also provides important implications for food security. Consumer trust directly affects purchasing behavior, acceptance of sustainable agricultural innovations, and willingness to support environmentally responsible production systems. When sustainability information is perceived as reliable and cognitively consistent, consumers are more likely to choose products that contribute to environmental protection, resource efficiency, and resilient food systems. Conversely, persistent cognitive dissonance may discourage sustainable consumption, reduce confidence in certification systems, and weaken the societal contribution of marketing communications to food security.

The increasing digitalization of agri-food markets further reinforces the importance of cognitive fit. Artificial intelligence, machine learning, semantic analytics, and personalized recommendation systems allow organizations to adapt marketing communications to individual cognitive preferences while simultaneously monitoring changes in consumer attitudes. Consequently, cognitive fit evolves from a purely psychological concept into an innovative strategic instrument for designing adaptive, evidence-based, and consumer-oriented marketing communications.

Overall, the proposed theoretical framework positions Cognitive Fit Theory as an integrative mechanism linking sustainability narratives, consumer cognition, marketing communications, and food security. By reducing cognitive dissonance and enhancing the perceived authenticity of sustainability claims, cognitive fit contributes to stronger consumer trust, more responsible purchasing behavior, and the broader achievement of sustainable development objectives.

Conclusions. The findings of this study demonstrate that Cognitive Fit Theory provides a valuable conceptual foundation for understanding and designing marketing communications in the agri-food sector under the conditions of growing food security challenges and the transition toward sustainable development. Unlike traditional communication approaches that primarily emphasize message delivery, the proposed framework highlights the importance of achieving consistency between sustainability narratives, objectively verifiable product characteristics, and consumers' cognitive structures, values, and expectations. Such cognitive alignment reduces informational uncertainty, strengthens consumer trust, and enhances the credibility of sustainability-related marketing communications.

The study conceptualizes cognitive fit as a multidimensional construct comprising informational, value, and communication dimensions. Their interaction determines the effectiveness of marketing communications by influencing consumers' perception of authenticity, trustworthiness, and relevance of sustainability claims. Conversely, inconsistencies between communicated messages and consumers' experiences generate cognitive dissonance, resulting in scepticism, declining brand trust, and reduced willingness to support sustainable products.

A key contribution of this research is the development of a conceptual model of marketing communications based on Cognitive Fit Theory. The proposed model integrates four interconnected stages: diagnostic, narrative alignment, communication, and fit monitoring, providing a systematic framework for designing, implementing, and continuously improving sustainability-oriented marketing strategies. The model extends existing marketing communication theory by incorporating cognitive mechanisms into the communication process and by linking consumer cognition with broader objectives of food security and sustainable development.

From a practical perspective, the proposed approach may assist agricultural enterprises in developing more transparent, evidence-based, and consumer-oriented communication strategies. Aligning sustainability narratives with actual product characteristics and consumers' cognitive expectations can increase consumer confidence, encourage responsible purchasing behaviour, reduce the negative effects of greenwashing, and improve the overall effectiveness of sustainability communication. Consequently, marketing communications become not only a competitive instrument but also a mechanism that supports sustainable food systems and strengthens societal resilience.

The theoretical nature of this study also indicates several directions for future research. Further investigations should focus on developing empirical indicators for measuring cognitive fit, validating the proposed conceptual model across different agri-food markets, and assessing the relationship between cognitive fit, consumer trust, purchasing behaviour, and food security outcomes at regional, national, and international levels. Particular attention should also be devoted to examining how digital communication platforms, and personalized marketing technologies can facilitate the achievement and monitoring of cognitive fit in sustainable marketing communications.

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