

Connecting Gratitude and Self-Efficacy in Food Waste Reduction: A Conceptual Perspective on Social Marketing in Indonesia

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Article Info	Abstract
Keywords: Food Insecurity, Food Waste, Social Marketing	This paper examines the critical global issues of food insecurity and food waste, with a specific focus on Indonesia, a country that ranks second among the top 25 contributors to food waste. Despite being a significant contributor to global food waste, Indonesia faces the paradoxical challenge of widespread hunger, with millions of its population experiencing food insecurity. The 2030 Sustainable Development Goals (SDGs) highlight the urgent need for awareness and action to reduce food waste, yet empirical research on food waste behavior, particularly at the household level in Indonesia, remains scarce. Existing studies predominantly utilize theoretical frameworks such as the Theory of Planned Behavior (TPB) to analyze food waste behavior, though these are primarily exploratory. This paper identifies a gap in empirical research and presents an opportunity to investigate food waste behavior in Indonesia using contextual data. Drawing on the perspective of social marketing, the paper also reviews recent studies, including those by Kim et al. (2020), which explore the effectiveness of social marketing programs in promoting food waste reduction. Furthermore, it considers the role of emotional factors, such as gratitude, in influencing consumer behavior toward food waste, as discussed in research by Septianto et al. (2020). The paper concludes by highlighting the potential policy instruments and interventions suggested by Principato et al. (2021) that can contribute to reducing food waste at the consumer level. Through this conceptual framework, the paper aims to foster a greater understanding of food waste issues in Indonesia and provide insights for future empirical research and policy development.
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1. Introduction

According to 2019 estimates from the Food and Agriculture Organization (FAO), before the pandemic, nearly 690 million people—equivalent to 8.9% of the global population—were facing hunger. This figure grew by 10 million in just one year and increased by nearly 60 million over five years. Between 2015 and 2019, food insecurity also escalated, affecting 25.9% of the global population, or around 2 billion individuals,

with women more frequently experiencing moderate or severe food insecurity compared to men. Food waste represents a significant global challenge. The Sustainable Development Goals (SDGs) for 2030 aim to heighten global awareness around this issue, with Target 12.3 setting an ambitious goal to halve per capita food waste at both the retail and consumer levels by 2030 (FAO, 2021). Each year, approximately one-third of all food produced globally is lost or wasted. Indonesia ranks second in food waste among 25 major contributing nations, following Saudi Arabia, with an annual average of 300 kg of food waste per person, contributing to the global total of 1.3 billion tons (IEU, 2017). Ironically, the Global Hunger Index (GHI) reported that by the end of 2019, Indonesia was ranked 70th out of 117 countries, indicating a serious level of hunger. A 2019 report from the Asian Development Bank (ADB) and the International Food Policy Research Institute (IFPRI) revealed that from 2016 to 2018, 22 million Indonesians were experiencing hunger. Additionally, Indonesia continued to score poorly on the Global Food Security Index (GFSI), as reported by the Economist Intelligence Unit (EIU), as cited by Wulandari and Asih (2020).

To date, limited empirical research has investigated household behaviors surrounding food waste in Indonesia (Wulandari and Asih, 2020). Existing studies on food waste largely adopt theoretical frameworks such as the Theory of Planned Behavior (TPB) and the Norm Activation Model. In an extensive literature review, Wulandari and Asih (2020) observed that most research on food waste has been exploratory, primarily utilizing identification surveys and model-building to examine behavioral patterns related to food waste. Their findings also suggest that food waste issues differ significantly across countries, often due to cohort-specific factors. This underscores a critical opportunity to pursue empirical studies on food waste behavior within the unique Indonesian context. From a social marketing perspective, Kim et al. (2020) conducted a field experiment on the "Waste Not Want Not (WNWN)" social marketing program, involving 314 participants—110 in the observation group and 204 in the control group. Before and following the program, Kim et al. (2020) conducted telephone surveys. The WNWN program aimed to explore the effectiveness of social marketing in reducing food waste behavior. Overall, survey results indicated that the program successfully achieved the desired positive behavioral changes among residents. No statistically significant changes were observed in the control group, highlighting the impact of participation in WNWN. In summary, the WNWN pilot program met its objectives by effectively enhancing self-efficacy in cooking among the targeted audience and reducing the amount of fruits and vegetables discarded.

The study by Septianto et al. (2020) employed message framing as a moderator of the relationship between gratitude and consumer intentions, choices, and participation, mediated by processing fluency. The findings revealed that participants exposed to advertisements framed with gratitude for "having" (vs. not having) and loss (vs. gain) demonstrated higher intentions to reduce food waste. This effect was specific to gratitude, rather than general positive emotions like happiness. The study also identified a mediating role of processing fluency in this relationship. The study by Principato et al. (2021) conducted a systematic review of literature produced over eighteen years (2000-2018) to gain a deeper understanding of the complex aspects of food waste at the consumer level. Principato et al. (2021) recommended several instruments and policy tools that could contribute to reducing food waste at the consumer level, including subjective norm campaigns, educational campaigns, and the evaluation of interventions and policies. The Theory of Planned Behavior (TPB), developed by Icek Ajzen in 1991, is a psychological framework that aims to predict and explain human behavior in specific contexts. TPB posits that three key components influence an individual's intention to perform a behavior:

attitude toward the behavior, subjective norms, and perceived behavioral control (Ajzen, 1991). Attitude toward the behavior refers to the individual's positive or negative evaluation of performing the behavior. If a person believes that engaging in the behavior will lead to favorable outcomes, they are more likely to have a positive attitude toward it. Subjective norms involve the perceived social pressure to perform or not perform the behavior, reflecting the influence of people important to the individual, such as family, friends, and colleagues.

Perceived behavioral control pertains to the individual's perception of their ability to perform the behavior, including factors such as self-efficacy and the presence of facilitating or hindering conditions. Higher perceived control increases the likelihood of the individual intending to and performing the behavior. These three components collectively shape an individual's behavioral intentions, which are the immediate precursors to actual behavior. TPB has been widely applied in various fields, including health psychology, environmental behavior, marketing, and social sciences, to understand and predict behaviors such as smoking cessation, recycling, and consumer purchasing decisions (Ajzen, 1985; Ajzen, 2012; Kan & Fabrigar, 2017). Gratitude is a positive emotion that arises from the recognition that the recipient has gained a benefit because of someone or something other than themselves (McCullough et al., 2002). Consequently, gratitude is because the benefits received come from a benefactor, which motivates the recipient to reciprocate (Bartlett and DeSteno, 2006; McCullough et al., 2001). This happens because gratitude indicates that the recipient perceives the benefactor as a wise person whose actions demonstrate care for the recipient's well-being. Therefore, gratitude motivates the recipient to form and maintain interpersonal relationships with the benefactor (Algoe, 2012). Gratitude also makes individuals more willing or inclined to engage in prosocial behavior (Algoe, 2012; Bartlett and DeSteno, 2006; Ma et al., 2017).

Gratitude is a profound emotion that emerges when an individual recognizes that they have received a benefit due to the actions of someone or something other than themselves (McCullough et al., 2002). This realization fosters a sense of appreciation and acknowledgment towards the benefactor, which can significantly influence social behaviors and relationships. When a person feels gratitude, it signals that they perceive the benefactor as a considerate and wise individual whose actions demonstrate care and concern for their well-being (Bartlett & DeSteno, 2006; McCullough et al., 2001). Gratitude plays a crucial role in social cohesion and interpersonal relationships. It encourages the recipient to reciprocate the kindness they have received, thereby fostering a cycle of positive actions within a community. This reciprocity is not merely transactional but is deeply rooted in the emotional connection and the recognition of the benefactor's goodwill. According to Algoe (2012), gratitude acts as a social glue, strengthening bonds between individuals. It motivates people to maintain and enhance their relationships with those who have helped them, thereby promoting a sense of mutual support and cooperation.

Bandura (1986) stated that self-efficacy refers to an individual's belief in their ability to succeed in accomplishing something. According to Santrock (2007), self-efficacy is a person's belief in their ability to master a situation and produce something beneficial. Previous social marketing studies have shown the potential of self-efficacy as a mechanism that yields positive program outcomes (Lefebvre & Flora, 1988; Takahashi, 2007). Kim et al. (2020) used self-efficacy as an independent variable in social marketing on the topic of food waste and found that self-efficacy emerged as a key construct, given that local household members often did not know what to do with leftover food in their refrigerators. Recent studies continue to highlight the importance of self-efficacy in various contexts.

For instance, a 2023 study by Arifin et al. examined the role of self-efficacy in digital adoption among micro-entrepreneurs, finding that self-efficacy significantly mediates the relationship between digital adoption and business success. This underscores the broader applicability of self-efficacy in fostering positive outcomes across different domains. Additionally, Ferreira-Neto et al. (2023) explored the relationship between self-efficacy, entrepreneurial passion, and creativity, revealing that self-efficacy plays a crucial role in developing entrepreneurial intentions. In the context of food waste, self-efficacy remains a critical factor. A 2024 study by Zhu et al. demonstrated that self-efficacy is positively associated with food waste reduction behaviors, as individuals with higher self-efficacy are more confident in their ability to manage and repurpose leftover food effectively. This highlights the ongoing relevance of self-efficacy in promoting sustainable practices and addressing environmental challenges.

Personal norms have been defined by Schwartz (1977) as self-expectations for specific actions in particular situations, experienced as a sense of moral obligation. These personal norms and attitudes play a significant role in determining consumers' intentions to prevent food waste (Lorenz et al., 2017). Personal norms are a fundamental aspect of human behavior, guiding actions based on an internalized sense of what is right or wrong. They differ from social norms, which are external expectations imposed by society, as personal norms are internalized values that drive individuals to act in specific ways regardless of external pressures. Schwartz's Norm Activation Model (1977) posits that personal norms are activated when individuals become aware of the consequences of their actions and accept responsibility for them. This awareness and acceptance create a moral obligation to act in a way that aligns with these norms. In the context of food waste, personal norms can significantly influence consumer behavior. When individuals perceive food waste as a morally unacceptable behavior, they are more likely to engage in actions that prevent it. This moral obligation can manifest in various ways, such as planning meals more carefully, reusing leftovers, and being mindful of food purchases. Lorenz et al. (2017) found that individuals with strong personal norms against food waste are more likely to take proactive steps to reduce their food waste, highlighting the importance of moral values in driving sustainable behavior.

Prosocial behavior, or the intention to benefit others (Eisenberg et al., 2007), refers to social actions that "benefit others or society as a whole," such as helping, sharing, donating, cooperating, and volunteering. These behaviors are driven by a desire to improve the well-being of others and contribute positively to the community. Prosocial actions can take many forms, from small acts of kindness, like helping a neighbor with groceries, to larger efforts, such as organizing a community clean-up or donating to charity. The underlying motivation for prosocial behavior is often rooted in empathy, compassion, and a sense of moral responsibility. Research has shown that prosocial behavior has numerous benefits for both the giver and the receiver. For the giver, engaging in prosocial actions can enhance feelings of happiness, satisfaction, and overall well-being. Studies have found that individuals who regularly engage in prosocial behaviors report higher levels of life satisfaction and lower levels of stress and depression (Kubzansky et al., 2023). Additionally, prosocial behavior can strengthen social bonds and foster a sense of community, as individuals feel more connected to others and valued within their social networks.

For the receiver, prosocial behavior can provide essential support and resources, improving their quality of life and well-being. In times of need, acts of kindness and generosity can make a significant difference, offering comfort, assistance, and hope. The positive impact of prosocial behavior is not limited to immediate benefits; it can also have

long-term effects on the overall health and resilience of communities. For example, during the COVID-19 pandemic, communities with higher levels of prosocial behavior were more likely to engage in health-promoting actions, such as wearing masks and getting vaccinated, which contributed to lower mortality rates (Kubzansky et al., 2023). Recent studies continue to explore the mechanisms and outcomes of prosocial behavior. For instance, Wong Ming Wong (2023) examined the role of prosocial motivations in workplace innovation, finding that prosocial behavior can facilitate basic and applied research behaviors, leading to positive organizational outcomes. Additionally, research by Rhoads and Marsh (2023) highlighted the relationship between altruism and well-being, showing that prosocial actions can improve the mental and emotional health of both the altruist and the beneficiary.

Framing information refers to the process of selecting and emphasizing certain aspects of information to influence perception and interpretation. This concept is prevalent in various fields, including strategic communication, media studies, and behavioral psychology. The framing of information can significantly affect the decision-making, attitudes, and behaviors of individuals, as evidenced by several studies. Framing involves the active selection and structuring of information, which can shape how recipients interpret issues and make decisions. It is a critical tool in strategic information design, where the sender aims to guide the receiver's choices through carefully crafted signals (Brown & Nadendla, 2020). Recent research continues to explore the impact of framing on various aspects of human behavior. For example, Wei Zhang et al. (2023) investigated the effects of information framing on self-protective behavior during the COVID-19 pandemic. Their study found that gain-framed messages were more effective in promoting public self-protection behaviors compared to loss-framed messages. This highlights the importance of framing in influencing health-related decisions and behaviors. Additionally, framing theory has been applied to media studies to understand how news coverage shapes public perception. Goffman (1974) introduced the concept of frame analysis, emphasizing how media representations affect our understanding of social reality. For instance, news coverage of a protest can focus on either peaceful demonstrators or acts of violence, thereby shaping public opinions about the event's overall nature and purpose. In conclusion, framing information is a powerful tool that can significantly influence how individuals perceive and respond to information. By understanding the mechanisms and effects of framing, researchers, and practitioners can design more effective communication strategies to guide decision-making and promote desired behaviors.

2. Research Method

This study employs a qualitative descriptive approach through a literature review method, aiming to gather and analyze various sources related to the topic under investigation (Hasibuan, 2019). By applying this approach, the researcher reviews scientific papers, journal articles, books, and other relevant sources to obtain detailed insights and comprehensive information. Descriptive analysis is utilized to provide an overview of the gathered data. Through synthesizing previous research findings, this study not only summarizes existing knowledge but also offers new perspectives. This literature review method plays a crucial role in establishing a solid theoretical foundation and promoting a deeper understanding of the research topic. According to Aryana (2021), the data collection process follows several systematic steps to ensure accuracy. First, the researcher selects appropriate sources. Second, relevant keywords are applied. Third, each source is carefully examined. Fourth, the relevant data is organized and categorized for

further analysis. The following outlines the stages of data collection undertaken in this study.

3. Results and Discussion

The Relationship between Gratitude and Self-Efficacy in Food Waste Reduction

Research has shown that gratitude can significantly enhance prosocial behavior. Prosocial behavior refers to actions intended to benefit others or society as a whole, such as helping, sharing, donating, cooperating, and volunteering (Eisenberg et al., 2007). When individuals feel grateful, they are more likely to engage in actions that benefit others, as gratitude heightens their awareness of others' needs and their inclination to help. Algoe (2012) and Bartlett and DeSteno (2006) found that gratitude makes people more willing to engage in prosocial behaviors, as it fosters a sense of connectedness and empathy towards others. Recent studies also support this, showing that gratitude can predict prosocial behavior through mechanisms such as psychological resilience (Alamri & Al-Abyadh, 2024) and social support (Yu et al., 2023). Moreover, gratitude has been linked to various psychological and physical health benefits. It can enhance well-being by promoting positive emotions, reducing stress, and improving overall life satisfaction. Ma et al. (2017) demonstrated that individuals who practice gratitude regularly experience greater levels of happiness and well-being. This is because gratitude shifts focus from what is lacking in life to the abundance that already exists, fostering a more optimistic outlook. Zhu et al. (2024) found that gratitude has long-term benefits on prosocial behavior among young adults, further underscoring its significance.

Gratitude also impacts individual behaviors in meaningful ways. It can enhance self-control and resilience, helping individuals to cope with challenges and setbacks more effectively. Grateful people are often better equipped to handle stress and adversity, as they can draw on their sense of gratitude to find strength and perspective in difficult times. This resilience is partly because gratitude encourages a focus on positive aspects of life and the support received from others, which can provide emotional and psychological fortitude. In the context of social marketing, gratitude can be a powerful tool to influence behavior change. For example, campaigns that emphasize the positive impacts of prosocial behavior and highlight the gratitude recipients feel can motivate others to engage in similar actions. Social marketing programs that incorporate gratitude messaging can foster a sense of community and collective responsibility, encouraging individuals to contribute to the greater good. Gratitude also plays a role in consumer behavior. Septianto et al. (2020) found that gratitude can influence consumers' intentions to reduce food waste. Their study showed that participants who were exposed to gratitude-framed messages were more likely to engage in behaviors that minimize waste, as they felt a stronger moral obligation to not squander resources. This indicates that gratitude can be leveraged to promote sustainable practices and reduce wastage, benefiting both the individual and the community.

Recent studies have further explored the role of personal norms in food waste prevention. Obuobi et al. (2023) investigated the influence of personal norms on households' food waste reduction intentions in China. Their findings revealed that personal norms significantly impact food waste reduction intentions, highlighting the importance of moral obligation in promoting sustainable behaviors. This study supports the idea that when individuals internalize the belief that food waste is wrong, they are more likely to take action to prevent it. Additionally, Schrank et al. (2023) extended the Theory of Planned Behavior (TPB) to include personal norms and found that these norms positively affect consumers' intentions to reduce food waste. By incorporating personal norms into

the TPB framework, Schrank et al. demonstrated that personal moral obligations are a critical factor in predicting food waste reduction behaviors. This extension of TPB provides a more comprehensive understanding of the psychological mechanisms underlying food waste prevention. The impact of personal norms on behavior is not limited to food waste. A broader examination of environmental behaviors shows similar patterns. For instance, a study by Kollmuss and Agyeman (2002) on pro-environmental behavior highlighted that personal norms, coupled with a sense of personal responsibility, significantly influence environmentally friendly actions. This includes behaviors such as recycling, energy conservation, and sustainable consumption. The consistency of these findings across different contexts underscores the powerful influence of personal norms on sustainable behavior.

Moreover, interventions aimed at strengthening personal norms can be effective in promoting sustainable behaviors. Social marketing campaigns that appeal to individuals' moral values and highlight the ethical implications of food waste can activate personal norms and encourage behavior change. For example, emphasizing the moral responsibility to reduce food waste in public messaging can create a sense of moral obligation among consumers, leading to more sustainable practices. Personal norms are a vital component of behavior, particularly in the context of food waste prevention. These internalized moral obligations drive individuals to act in ways that align with their values, promoting sustainable behaviors. The significant impact of personal norms on consumer intentions to reduce food waste, as demonstrated by recent studies, highlights the importance of integrating moral considerations into strategies for promoting sustainability. By understanding and leveraging personal norms, policymakers, and practitioners can design more effective interventions to reduce food waste and encourage sustainable behavior.

Social Marketing and Its Relevance to Economic Impact in Indonesia

Framing information refers to the process of selecting and emphasizing certain aspects of information to influence perception and interpretation. This concept is prevalent in various fields, including strategic communication, media studies, and behavioral psychology. The framing of information can significantly affect the decision-making, attitudes, and behaviors of individuals, as evidenced by several studies. Framing involves the active selection and structuring of information, which can shape how recipients interpret issues and make decisions. It is a critical tool in strategic information design, where the sender aims to guide the receiver's choices through carefully crafted signals (Brown & Nadendla, 2020). Recent research continues to explore the impact of framing on various aspects of human behavior. For example, Zhang et al. (2023) investigated the effects of information framing on self-protective behavior during the COVID-19 pandemic. Their study found that gain-framed messages were more effective in promoting public self-protection behaviors compared to loss-framed messages. This highlights the importance of framing in influencing health-related decisions and behaviors.

Additionally, framing theory has been applied to media studies to understand how news coverage shapes public perception. Goffman (1974) introduced the concept of frame analysis, emphasizing how media representations affect our understanding of social reality. For instance, news coverage of a protest can focus on either peaceful demonstrators or acts of violence, thereby shaping public opinions about the event's overall nature and purpose. Framing information can play a crucial role in moderating the relationship between gratitude, self-efficacy, personal norms, and prosocial intention and behavior. By emphasizing certain aspects of information, framing can influence how individuals perceive and interpret these constructs, ultimately affecting their intentions and actions.

For instance, when information is framed positively, highlighting the benefits of prosocial behavior, it can enhance individuals' gratitude and self-efficacy. This positive framing can make individuals feel more capable of making a difference and more appreciative of the impact of their actions, thereby increasing their prosocial intentions and behaviors. Conversely, negative framing, which emphasizes the consequences of not engaging in prosocial behavior, can also influence personal norms by making individuals feel a stronger moral obligation to act. Recent research supports this idea. Ding Zhang et al. (2022) found that gratitude has a significant positive effect on prosocial behavior, and this relationship is mediated by a sense of meaning in life. Additionally, self-esteem was found to moderate this relationship, indicating that individuals with higher self-esteem experience a stronger positive effect of a sense of life's meaning on their prosocial behavior. This suggests that framing information in a way that enhances self-esteem and a sense of meaning can further strengthen the relationship between gratitude and prosocial behavior.

Moreover, the study by Zhang et al. (2023) on the effects of information framing on self-protective behavior during the COVID-19 pandemic highlights the importance of framing in influencing health-related decisions and behaviors. This study found that gain-framed messages were more effective in promoting public self-protection behaviors compared to loss-framed messages. This demonstrates how framing can modulate the relationship between self-efficacy and prosocial behavior by shaping individuals' perceptions of their ability to make a positive impact. Based on the Theory of Planned Behavior and literature between 1974 and 2023 this study proposes a conceptual framework that describes the relation between gratitude, self-efficacy, personal norms, framing information, and prosocial intention and behavior.

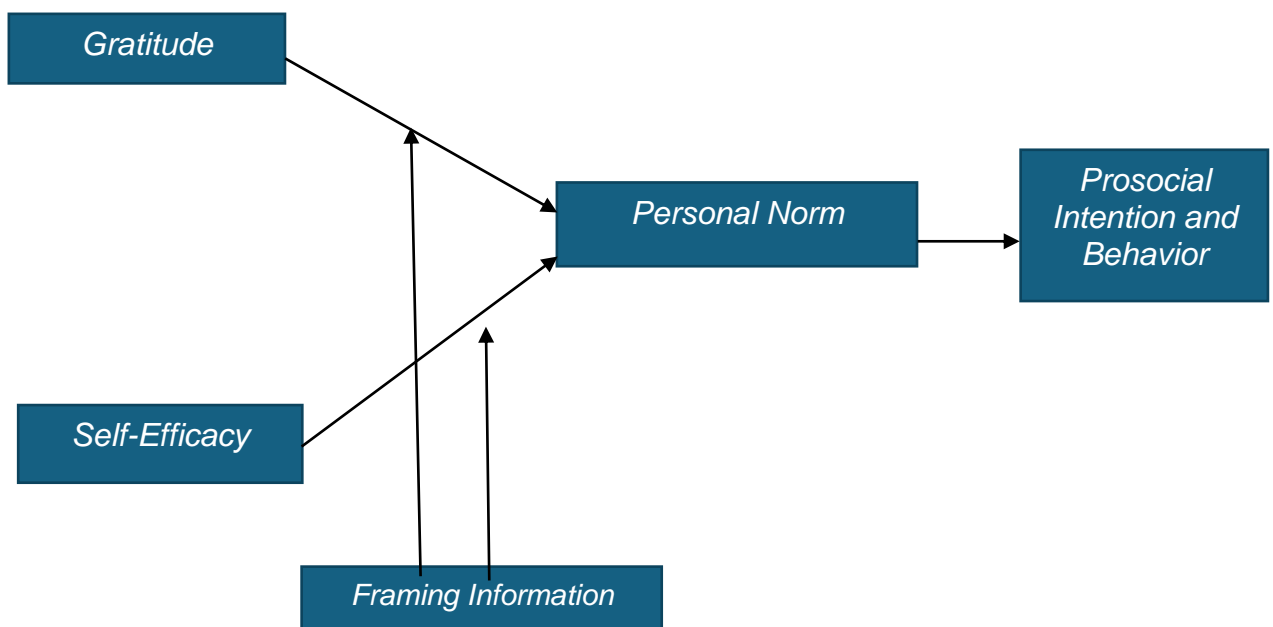


Figure 1. Proposed Conceptual Framework

4. Conclusions

Gratitude is a multifaceted emotion with profound implications for social behavior, interpersonal relationships, and individual well-being. It fosters prosocial behavior, enhances resilience, and can be a powerful motivator in various contexts, including social marketing and consumer behavior. By understanding and leveraging the power of gratitude, individuals and organizations can promote positive actions and create a more compassionate and connected society. Prosocial behavior is a powerful force for positive change, benefiting individuals, communities, and society as a whole. By fostering empathy, compassion, and a sense of moral responsibility, prosocial actions can create a more supportive and connected world. As research continues to uncover the benefits and mechanisms of prosocial behavior, it becomes increasingly clear that encouraging and promoting these actions can lead to a healthier, happier, and more resilient society. Framing information can significantly modulate the relationship between gratitude, self-efficacy, personal norms, and prosocial intention and behavior. By carefully selecting and emphasizing certain aspects of information, communicators can influence how individuals perceive and interpret these constructs, ultimately guiding their intentions and actions toward more prosocial outcomes.

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