

Factors Affecting Consumers' Purchase Decisions for Green Food: Weibo Social Media Platform

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Abstract: The objectives of this research were: (1) to examine consumer behavior in purchasing green food on the Weibo social media platform, and (2) to identify the factors influencing consumers' purchase decisions for green food on Weibo. This study employed a quantitative research method. Data were collected from a sample of 400 Chinese social media users, particularly those active on Weibo and who purchase green food, using a convenience sampling technique. The data were analyzed using descriptive statistics (frequency, percentage, mean, standard deviation) and multiple regression analysis. The research findings revealed that: (1) most respondents (43.75%) purchase green food 1–2 times per week. The most purchased category was snacks and beverages (42.25%), reflecting a preference for convenience. Recommendations from trusted sources (50.00%) were the strongest motivator, while educational content highlighting health and environmental benefits (47.75%) had the greatest influence on purchase decisions. Influencer endorsements (49.50%) were the most significant factor affecting trust in green food brands; and (2) the multiple regression model showed an R^2 of 0.845, indicating that 84.5% of the variance in purchase decisions was significantly explained by the independent variables: Word of Mouth, Personalization, Trendiness, and Product Knowledge. Among these, product knowledge ($\beta = 0.595$, $p < 0.001$) had the strongest positive influence on customer purchase decisions. Word of Mouth ($\beta = 0.199$, $p < 0.001$) and Personalization ($\beta = 0.113$, $p < 0.001$) were also statistically significant, highlighting the importance of social influence and tailored marketing approaches. However, Trendiness ($\beta = 0.032$, $p = 0.572$) was not statistically significant at the 0.05 level.

Keywords: Social media, Purchase decision, Green food.

1. Introduction

Individual consumption behavior has a significantly negative effect on the environment. Due to the rapid economic expansion and industrial development, people's purchasing power has significantly increased, resulting in a further decline in the environment's condition. In response to environmental issues, both consumers and enterprises have shifted their attention towards green consumption. Many customers take environmental factors into account when making purchasing decisions. Enterprises have recognized the significant market potential of green food and are actively promoting it.

In order to encourage the consumption of environmentally friendly food, companies have escalated their financial commitments towards green marketing and have placed significant emphasis on the significance of Weibo social media platforms (Watson et al., 2024), and Twitter in the promotion of eco-friendly food products. Social media significantly influences customers' perceptions and intentions to buy environmentally friendly food. In August 2017, "We Are Social" and "Hootsuite" revealed numbers showing that the global number of social media users surpassed 3 billion, with over 900 million monthly active users in China. Over 80 percent of consumers have the ability to identify green propaganda on social media, and nearly half of consumers perceive it as trustworthy. Businesses are increasingly prioritizing social media marketing as a means to promote environmentally-friendly cuisine. Based on the research, the study has two objectives as below:

(1) To examine consumer behavior in purchasing green food on Weibo social media platform

(2) To identify factors influencing consumers' purchase decisions for green food on Weibo social media platform

2. Research Hypothesis

Word of mouth, particularly electronic word of mouth (eWOM), has been widely studied in relation to purchase decisions (Xia & Chaipoopirutana, 2020). Research shows that eWOM plays a significant role in shaping consumers' attitudes toward products and brands. eWOM on Weibo social media platforms is more trusted by consumers compared to traditional advertising. The authenticity and credibility of peer recommendations, reviews, and discussions contribute to building consumer trust, which in turn influences purchase intentions.

Personalization is another crucial aspect of social media marketing that significantly impacts purchase decisions (Ait Baha et al., 2023). Personalization refers to the tailored content, advertisements, and product recommendations that are presented to users based on their preferences, browsing history, and previous interactions (Xia & Shannon, 2024). Several studies have found that personalized recommendations are more likely to lead to consumer engagement and eventual purchase decisions.

Trendiness on social media plays a pivotal role in influencing consumer behavior, particularly among younger generations such as Gen Z and millennials (Zhu et al., 2020). Weibo social media platforms have the ability to capture and promote current trends, which can influence purchase decisions. This is particularly evident in the popularity of viral challenges, fashion trends, and lifestyle choices that spread quickly across platforms like TikTok, Instagram, and Weibo (Abzari et al., 2014).

Product knowledge has a direct impact on purchase decision as it reduces uncertainty and enhances consumer confidence in their buying decisions (Assoratgoon & Kantabutra, 2023). Social media serves as a vital source of

product information, allowing users to gather and share knowledge before making a purchase (Duarte et al., 2024). Product knowledge can be classified into three types: subjective knowledge (what consumers believe they know), objective knowledge (what consumers actually know), and experience-based knowledge (derived from past interactions with the product). Thus, the followings are the hypothesis:

1) Word of mouth has a positive influence on consumers' purchase decisions for green food on Weibo social media platform

2) Personalization has a positive influence on consumers' purchase decisions for green food on Weibo social media platform

3) Trendiness has a positive influence on consumers' purchase decisions for green food on Weibo social media platform

4) Product knowledge has a positive influence on consumers' purchase decisions for green food on Weibo social media platform

3. Conceptual framework

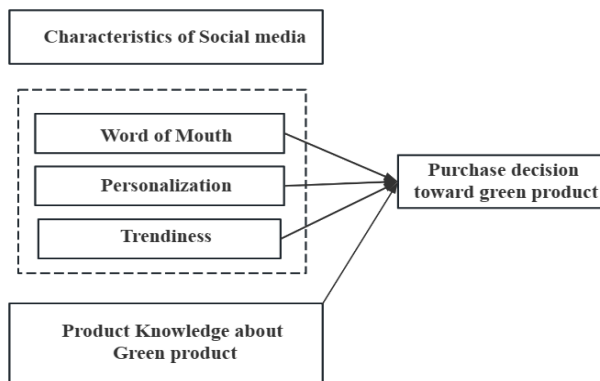


Figure 1. Conceptual Framework

4. Methodology

The study explores the concept of green food, including organic products, locally sourced food, and foods with sustainable packaging. It also considers consumers' perceptions of health benefits associated with these products.

This research aims to examine the relationships between key characteristics of social media—word of mouth, personalization, and trendiness, product knowledge—and consumers' purchase decisions for green food. It posits that these characteristics influence consumers' decision-making process by leveraging the interactive and engaging nature of Weibo social media platforms.

The research analyzes the social media (Weibo) content, such as posts by influencers, user reviews, and promotional advertisements, to understand their impact on purchase decisions. The 400 people that participated in this research are those who consuming the green food in China and would like to use Weibo to share their stories. The users are able to develop a connection with this green food with the assistance of these features via the Weibo social media. Both the descriptive analysis and the inferential analysis are designed

to be utilized by the researchers throughout this investigation.

5. Result

The researcher analyzed the descriptive data of the respondents. Below are the results of the study.

Table 1. The demographic information about green customers (n=400)

	Frequency	Percent
Gender		
Male	149	37.1
Female	251	62.9
Age		
20 or less	3	0.8
21-30	115	28.8
31-40	186	46.7
41-50	70	17.4
51 or more	26	6.3
Annual Income		
\$20,000 or less	155	39.1
\$20,001-30,000	82	20.5
\$30,001-40,000	51	12.6
\$40,001-50,000	31	7.3
\$50,001 or more	82	20.5
Education		
Secondary school or less	48	11.9
Undergraduate	209	52.5
Graduate	84	21.0
Post-graduate	16	3.8
Other	43	10.9
Occupation		
Management	65	16.2
Student	41	10.1
Government	16	3.8
Employee	96	24.0
Self-employed	67	16.9
Other	115	29.0

Table 1 shows that 62.9% are female (251 individuals) and 37.1% are male (149 individuals). The most represented age group is 31–40 years old (46.7%), followed by 21–30 years old (28.8%), 41–50 years old (17.4%), 51 years or older (6.3%), and 20 years or younger (0.8%). In terms of annual income, 39.1% earn \$20,000 or less, while 20.5% fall into both the \$20,001–\$30,000 and \$50,001 or more categories. Additionally, 12.6% earn between \$30,001 and \$40,000, and 7.3% earn between \$40,001 and \$50,000. Regarding education, 52.5% hold an undergraduate degree, 21.0% have a graduate degree, 11.9% completed secondary school or less, 10.9% have other educational backgrounds, and 3.8% hold a postgraduate degree. For occupation, 29.0% fall into the “Other” category, 24.0% are employees, 16.9% are self-employed, 16.2% are in management positions, 10.1% are students, and 3.8% work in government.

Table 2. Consumer behavior in purchasing green food on Weibo social media platform in China (n=400)

Demographic Data	Quantity	Percentage
1. How often do you purchased green food on Weibo per week?		
1 - 2 times	175	43.75
3-4 times	150	37.50
more than 4 times	75	18.75
2. What kind of green food do you purchase the most on Weibo?		
Organic Vegetables and Fruits	65	16.25
Organic Grains and Rice	34	8.50
Organic Dairy Products	123	30.75
Snacks and Beverages	169	42.25
Other	9	2.25
3. What motivates you to consider purchasing green food based on posts you see on Weibo?		
Health benefits emphasized in posts	45	11.25
Environmental awareness raised by campaigns or influencers	101	25.25
Recommendations from trusted sources or users	200	50.00
Attractive promotions or discounts offered	44	11.00
Other	10	2.50
4. What type of green food content on Weibo influences your purchasing decision the most?		
Reviews or testimonials from other users	21	5.25
Posts by influencers or celebrities endorsing green food	34	8.50
Educational content about green food's health and environmental benefits	191	47.75
Content about certifications, safety standards, or product origin	48	12.00
Visual content, like recipes or cooking demonstrations with green food	106	26.50
5. Which factors affect your trust in green food brands promoted on Weibo?		
The transparency of the brand's production process	67	16.75
The number of positive reviews or comments on their posts	43	10.75
Endorsements from credible or popular influencers	198	49.50
Official certifications or government recognition shown in posts	90	22.50
None, I do not trust green food promotions on Weibo	2	0.50

Table 2 shows that the majority of respondents is (43.75%) purchase green food 1-2 times per week, followed by 37.50% who purchase 3-4 times per week. This suggests that green food consumption through social media is relatively frequent, with only a smaller proportion (18.75%) purchasing more than four times per week.

The most purchased green food category is snacks and beverages (42.25%), indicating that consumers prefer convenient, ready-to-eat green food options. Organic dairy products (30.75%) are also widely consumed, while Organic Vegetables and Fruits (16.25%).

The strongest motivator for purchasing green food is recommendations from trusted sources or users (50.00%), showing the importance of social proof and peer influence. Environmental awareness from campaigns and influencers (25.25%) also plays a role, while health benefits emphasized

in posts (11.25%).

Educational content about green food's health and environmental benefits (47.75%) is the most influential, demonstrating that consumers seek reliable information before making a purchase decision. Visual content (26.50%), such as cooking demonstrations and recipes, also attracts consumer interest, while Content about certifications, safety standards, or product origin (12.0%).

The most significant factor influencing trust in green food brands is endorsements from credible or popular influencers (49.50%), showing that influencer marketing plays a crucial role in consumer trust. Official certifications and government recognition (22.50%) also help validate brand credibility, while the transparency of the brand's production process (16.75%) as the third ranking.

Table 3. Matrix of correlation coefficients for each variable

	Word of mouth	Personalization	Trendiness	Product knowledge	Purchase decision
Word of mouth	1				
Personalization	0.497	1			
Trendiness	0.362	0.446	1		
Product knowledge	0.467	0.516	0.437	1	
Purchase decision	0.399	0.404	0.517	0.332	1

Note: *Significance less than 0.05 is considered relevant.

According to the analysis of the correlation matrix in Table 3, there are significant positive correlations among the variables. Notably, "Trendiness" (0.517) has the strongest correlation with "Purchase Decision," indicating that

consumers' purchase decisions are highly influenced by trendy and popular content. Additionally, "Personalization" (0.404) and "Word of Mouth" (0.399) also have moderate influences on purchase decisions, highlighting the importance of recommendations and customized experiences in driving

consumer behavior. While the correlation between "Product Knowledge" and "Purchase Decision" is relatively weaker (0.332), it still remains a critical factor. It is worth noting that "Personalization" and "Product Knowledge" have a strong correlation (0.516), suggesting that personalized content

helps enhance consumers' understanding of green food. Overall, trendiness emerges as the key factor influencing consumers' purchase decisions, while personalization and word of mouth play important roles in increasing product knowledge and driving purchasing behavior.

Table 4. Results of multiple regression analysis

Variables	R ²	constant	b	Std. Error	β	t	p
Model 1	0.845	0.261	0.203	0.043	0.199	4.802	.000
Word of mouth (X1)			0.114	0.051	0.113	2.223	.000
Personalization (X2)			0.032	0.056	0.032	0.565	.572
Trendiness (X3)			0.624	0.043	0.595	14.638	.000
Product knowledge (X4)							

Note: Dependent variable: Purchase decision

Table 4 presents the results of a multiple regression analysis to evaluate the influence of independent variables (Word of Mouth, Personalization, Trendiness, and Product Knowledge) on the dependent variable (Purchase Decision). R² = 0.845: This means that 84.5% of the variance in the purchase decision is explained by the independent variables (Word of Mouth, Personalization, Trendiness, and Product Knowledge). This suggests a strong explanatory power.

Word of mouth has a statistically significant positive impact on purchase decisions (p < 0.05). The standardized coefficient (β = 0.199) indicates that word of mouth is moderately important in influencing purchase behavior. Personalization also has a statistically significant positive impact on purchase decisions (p < 0.05). Although the standardized coefficient (β = 0.113) is smaller compared to other variables, this finding highlights the importance of tailored marketing strategies in driving consumer behavior. Trendiness is not statistically significant in influencing purchase decisions (p > 0.05). The very low standardized coefficient (β = 0.032) suggests that this variable has a minimal effect on consumers' purchasing behavior compared to other factors. Product knowledge is the most significant factor influencing purchase decisions (p < 0.05). The standardized coefficient (β = 0.595) indicates a strong positive relationship, highlighting that consumers' awareness and understanding of green food play a critical role in their purchasing behavior.

Prediction equation in the form of raw scores

From the table:

Constant (a) = 0.261

b₁ (Word of Mouth) = 0.203

b₂ (Personalization) = 0.114

b₃ (Trendiness) = 0.032

b₄ (Product Knowledge) = 0.624

Thus, the equation in raw scores is:

$$\hat{Y} = 0.261 + 0.203(X_1) + 0.114(X_2) + 0.032(X_3) + 0.624(X_4)$$

Prediction equation in the form of standard scores

$$\hat{Z} = 0.595(X_4) + 0.199(X_1) + 0.113(X_2) + 0.032(X_3)$$

Table 5. Results of multicollinearity detection

Variables	Collinearity Statistics	
	Tolerance	VIF
Word of mouth	0.392	2.552
Personalization	0.263	3.798
Trendiness	0.214	4.674
Product knowledge	0.408	2.453

The multicollinearity analysis demonstrates that none of the variables exhibit severe multicollinearity, as all VIF values are well below 10, and tolerance values are above the critical threshold of 0.1. This confirms the reliability of the regression model in assessing the individual contributions of Word of Mouth, Personalization, Trendiness, and Product Knowledge to predicting Purchase Decisions (O'Brien, 2007).

Based on the results of the above correlation and regression analyses, the hypothesis testing conclusions of this study are presented in the table below:

Table 6. Hypothesis testing results

Hypotheses	Hypothetical content	Verification results
H1	Word of mouth has a positive influence on consumers' purchase decisions for green food on Weibo social media platform in China	Support
H2	Personalization has a positive influence on consumers' purchase decisions for green food on Weibo social media platform in China	Support
H3	Trendiness has a positive influence on consumers' purchase decisions for green food on Weibo social media platform in China	Not support
H4	Product knowledge has a positive influence on consumers' purchase decisions for green food on Weibo social media platform in China	Support

The analysis shows that Word of Mouth (H1), Personalization (H2), and Product Knowledge (H4) are significant predictors of consumers' purchase decisions for green food on Weibo social media platforms in China. However, Trendiness (H3) does not have a meaningful impact. One reason is that Green food is often associated with health, sustainability, authenticity, and long-term benefits, while

trendiness is typically tied to novelty, popularity, and short-term hype. Consumers seeking green food may prioritize credibility, quality assurance, and eco-certifications over what's currently "trending" on Weibo. These findings suggest that educational content, personalized experiences, and trusted recommendations are the most effective strategies for influencing consumer behavior, while simply relying on

trendy content is less effective.

6. Conclusion

The multiple regression analysis conducted in this study evaluates the impact of four independent variables—Word of Mouth (X1), Personalization (X2), Trendiness (X3), and Product Knowledge (X4)—on the dependent variable, Purchase Decision. The model explains 84.5% of the variance in green food purchase decisions ($R^2 = 0.845$), indicating a strong predictive power. The significance of each factor is assessed using beta coefficients (β), t-values, and p-values, with a focus on identifying statistically significant influences.

Word of mouth plays a significant role in influencing green food purchases. Consumers rely heavily on recommendations from friends, family, and online reviews when making decisions about sustainable food products (Xu & Xia, 2025). Positive word of mouth enhances trust and reduces perceived risk, thereby increasing purchase intention.

Personalization, such as tailored marketing messages or customized product recommendations, significantly affects green food purchases. Consumers appreciate brands that cater to their specific preferences, making them more likely to purchase sustainable food products (Duarte et al., 2024). This finding suggests that businesses should invest in personalized marketing strategies to boost engagement and conversion rates. The research finding that trendiness does not have a positive influence on consumers' purchase decisions for green food on Weibo.

Product knowledge is the most influential factor in green food purchase decisions. Consumers who are well-informed about the benefits of sustainable food, including health advantages and environmental impact, are significantly more likely to make green purchases (Barber & Almanza, 2007). This finding highlights the importance of educational campaigns and transparent product labeling in fostering sustainable consumption.

1) Word of Mouth has a positive influence on consumers' purchase decisions for green food on Weibo social media platforms in China ($\beta = 0.199$, $p < 0.05$)

2) Personalization has a positive influence on consumers' purchase decisions for green food on Weibo social media platforms in China ($\beta = 0.113$, $p < 0.05$)

3) Trendiness does not have a positive influence on consumers' purchase decisions for green food on Weibo social media platforms in China ($\beta = 0.032$, $p > 0.05$)

4) Product Knowledge has a positive influence on

consumers' purchase decisions for green food on Weibo social media platforms in China ($\beta = 0.595$, $p < 0.05$)

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