

IC-009

Marketing Mix, Marketing Sustainability, and Consumer Buying Process: Company A's Water Ecological Restoration Products in China

Yang Mengdie*

Faculty of Management Science, Dhonburi Rajabhat University, Bangkok, Thailand

*Corresponding author's email: 61949972@qq.com

ABSTRACT

This research investigates marketing challenges and strategies for Company A's water ecosystem restoration products through a sample of 400 respondents. Findings highlight preferences of predominantly female, young adults with moderate incomes and education levels. Key insights include the significance of product attributes, problem recognition, and sustainability in consumer decision-making. Statistical analysis underscores the strong influence of marketing mix variables on sustainable marketing status. These insights offer valuable guidance for effectively marketing water ecological restoration products in China.

Keywords: Marketing Mix, Marketing Sustainability, Water Ecological Restoration Products, Consumer Buying Process

Introduction

China's emphasis on environmental harmony and the growing market for water pollution control and ecological restoration underscore the importance of sustainable practices in the country. With significant investments in environmental protection and water management, there's a clear market demand for eco-friendly solutions.

Company A, established in 1997, specializes in sustainable water resource management. Despite its extensive operations and workforce, the company faces challenges, including disorganized marketing efforts and declining market share. To address these challenges, a revised market expansion strategy is crucial for long-term growth and competitiveness. Company A operates in the water ecological restoration sector, offering products such as water plants and microbial agents. With patented technology and a reputable R&D team, the company faces intensified competition and evolving consumer demands. Enhancing core competitiveness and expanding market share are pressing priorities.

This study offers actionable insights for businesses, particularly Company A, grappling with market challenges and declining sales. By providing a guiding strategy for effective market expansion, this research aims to help companies like Company A navigate industry competition and achieve sustainable growth. This paper centers on Company A's market expansion approach, synthesizing comprehensive strategies based on literature review and the company's specific challenges. By examining Company A's experiences, this study serves as a valuable benchmark for the broader environmental services sector.

Marketing mix strategy involves orchestrating various activities to meet customer needs and maximize profits (Astuti, Wicaksono & Nazzal, 2021). It blends product, place, price, and promotion elements (McCarthy, 1972). (1) Products: The quality, functionality, and packaging of a product should align with customer needs and brand positioning. (2) Place: This encompasses distribution channels like online platforms, social media, and traditional stores, catering to diverse consumer preferences (51% online, 49% in-store) (Astuti, Wicaksono & Nazzal, 2021). (3) Price: Pricing strategies should consider target demographics and profitability, with 18% of businesses lacking internal pricing skills (Bain & Company). (4) Promotion: Marketing efforts include direct marketing, public relations, advertising, and content marketing, aimed at garnering attention (Astuti, Wicaksono & Nazzal, 2021).

Jamrozy (2007) proposed a triangular model for sustainable marketing, comprising three dimensions: economic viability, societal equality, and environmental protection. (1) Economic Dimension: Traditional consumer-oriented marketing prioritizes economic profit, but sustainable marketing integrates environmental and social objectives. Green marketing focuses on reducing environmental impact but still emphasizes profit (Jamrozy, 2007). (2) Social Dimension: Sustainable development addresses poverty and social inequality. Social marketing considers business impact on communities and advocates for socially responsible actions (Jamrozy, 2007). (3) Environmental Dimension: Sustainable marketing promotes environmental protection and

conservation. It emphasizes maintaining a strong environment through resource conservation and cultural preservation (Jamrozy, 2007).

Factors influencing consumer decisions encompass personal, social, and environmental dimensions. Consumer's income level has a decisive impact on consumer's purchase decision. Demand is what consumers can afford to pay for. The income level of the consumer directly determines the social class of the consumer, and the purchasing decision of the consumer is affected by the general consumption habits of the social class, such as consumption occasions, consumption price and so on. (Heinz & Elsinger, 2021). Social factors encompass societal norms, reference groups, and cultural influences. Meanwhile, environmental factors involve accessibility, store environment, service quality, and after-sales support.

Purposes

1. To study the marketing mix and marketing sustainability of water ecological restoration products.
2. To study consumer buying process of water ecological restoration products.
3. To study marketing mix and marketing sustainability of water ecological restoration products affect consumer buying process.

Research Methodology

1. Research Instrument

This research utilizes a questionnaire survey to gather insights on consumer factors influencing urban ecological product purchases across cities. Analyze key factors and propose targeted marketing suggestions for Company A's water restoration products, facilitating the determination of an effective marketing strategy.

2. Populations and Samples

The study comprises a sample of 400 questionnaires from five cities: Shanghai, Hangzhou, Ningbo, Suzhou, and Jiaxing. (the population size is 24,280,000, 9,800,000, 8,202,000, 10,710,000, 5,467,000) The main sales regions include Shanghai, Hangzhou, and Ningbo, while Suzhou and Jiaxing represent future markets. To select a representative sample for analysis, 100 surveys will be randomly chosen from the pool of 400 questionnaires. This random selection ensures each survey has an equal chance of inclusion, minimizing bias and ensuring the sample accurately reflects perceptions of water ecological restoration products and Company A's popularity in the target cities. The random selection process involves generating 100 random numbers between 1 and 400, corresponding to the selected surveys. These chosen questionnaires will form the sample used for analysis.

3. Statistics for Data Analysis

This study employs Multiple Regression Analysis to explore the relationship between consumer behavior and product attributes. Through questionnaire surveys, interviews, and observations, factors influencing consumer decision-making are investigated. Statistical analysis and modeling provide insights into market share, sales volume, unit price, and promotional mix for water ecological restoration products. Data types include dependent variables (product popularity) and independent variables (price, features, brand reputation, etc.), collected from 400 online surveys, then analyzed using regression analysis to determine influential factors. The calculated average can be interpreted as follows:

- 4.50 – 5.00 means there is the highest level of opinion.
- 3.50 – 4.49 means there is a high level of opinion.
- 2.50 – 3.49 means that the opinion is at a moderate level.
- 1.50 – 2.49 means that the opinion is at a low level.
- 1.00 – 1.49 means there is the least level of opinion.

Results

1. Opinions on Marketing Strategy of Water Ecological Restoration Products in the Chinese Market Table 1 Overview Marketing Mix and consumer buying process

Overview Marketing Mix and consumer buying process	Average	standard deviation	Interpret	Ranking
Product	3.58	1.38	High	1
Price	3.23	1.20	Moderate	4
Place	3.35	1.23	Moderate	3
Promotion	3.43	1.22	Moderate	2
Total	3.39	1.25	Moderate	

From Table 1, the results indicate an overall high level of opinions. The mean score for all the questions combined is 3.39, with a standard deviation of 1.25. When examining each component and ranking them based on their mean scores, it becomes evident that “Product” received the highest average score of 3.58, categorizing it as “High” and ranking it at the top position. This signifies that respondents hold a notably high level of opinion regarding the product aspect. On the other hand, “Price,” “Place,” “Promotion,” and the “Consumer Buying Process” received lower average scores, categorizing them as “Moderate” and ranking them lower (4, 3, 2, and 5, respectively). This indicates that respondents have a more moderate or neutral stance on these components of the marketing mix and the consumer buying process.

Table 2 Overview Marketing Sustainability

Consumer buying Process	Average	standard deviation	Interpret	Ranking
Economic Survival	3.09	1.31	Moderate	3
Social Equity	3.12	1.21	Moderate	2
Environmental Protection	3.48	1.28	High	1
Total	3.23	1.26	Moderate	

From Table 2, the results indicate that people have a relatively high level of concern for the environment, followed by the environment and society. The average score for the three major categories of problems combined is 3.23, with a standard deviation of 1.26. When examining each component and ranking it based on its average score, it is evident that "environment" has the highest average score of 3.48 points, classified as "high" and ranked first (1). This means that respondents attach great importance to environmental aspects. On the other hand, "social", "economic", and being classified as "moderate" indicate that respondents place more emphasis on the environmental impact of the product during the purchasing process.

2. Test result

Table 3 The fit of regression model

Variables	a constant	b	Std. Error	β	t	p	VIF	Tolerance
Product	0.007	0.05	0.015	0.35	3.33	0.002	1.2	0.833
Price		0.03	0.008	0.25	3.75	0.001	1.1	0.909
Place		0.02	0.007	0.15	2.86	0.008	1.3	0.769
Promotion		0.04	0.012	0.30	3.50	0.003	1.4	0.714
Economic Survival		0.06	0.018	0.40	3.33	0.002	1.5	0.667
Social Equity		0.07	0.022	0.45	3.18	0.004	1.6	0.625
Environmental Protection		0.08	0.025	0.50	3.20	0.004	1.7	0.588

Note: *Dependent variable: Consumer Buying Process

From Table 3, the Multiple Regression Analysis reveals significant impacts of various factors on consumer behavior. All variables - Product, Price, Place, Promotion, Economic Survival, Social Equity, and Environmental Protection - show statistically significant effects. For instance, Product exhibits a positive influence (coefficient = 0.054, t-value = 3.33, p = 0.002), indicating a 0.054 unit increase in the Consumer Buying Process for every unit increase in Product. Promotion (coefficient = 0.046, t-value = 3.50, p = 0.003) and Environmental Protection (coefficient = 0.283, t-value = 3.20, p = 0.004) also demonstrate significant positive impacts. The regression equation model is represented as: $Y = 0.007 + 0.283X_1 + 0.092X_2 + 0.068X_3 + 0.054X_4 + 0.046X_5 + 0.037X_6 + 0.023X_7$. These findings highlight the importance of these factors in shaping consumer decision-making processes. Additionally, the absence of significant multicollinearity issues, as indicated by VIF values ranging from 1.1 to 1.7 and corresponding tolerances from 0.588 to 0.909, reinforces the reliability of the model's results.

Discussion

The research in the Chinese market revealed a moderate overall impact of the marketing mix and consumer buying process on consumer behavior, indicating that these factors collectively influence consumer decisions without an extremely high or low impact. Product-related factors, with an overall average of 3.58, have a high impact on consumer product evaluations. Price-related factors, with an overall average of 3.03, moderately influence consumer decision-making, while place-related factors, with an overall average of 3.35, have a moderate impact on consumer choices regarding the place of purchase. Promotion-related factors, with an overall average of 3.43, moderately influence consumer decision-making regarding promotional activities. The consumer buying process, with an overall average of 3.21, plays a moderately influential role in consumer choices during various stages. Sustainable marketing factors collectively impact consumers' sustainable purchases, emphasizing economic feasibility, social equity, and environmental protection.

The test results indicate statistically significant relationships between Marketing Mix, Purchase Results, Economic Development, and Environmental Protection with Sustainable Marketing Status, reinforcing the importance of considering various marketing factors in achieving sustainable marketing goals. While Social Equity exhibits a slightly weaker relationship, it remains relevant to sustainable marketing practices.

Conclusions

Sustainable marketing, encompassing economic viability, social equality, and environmental protection, is integral to business operations. Understanding consumer purchasing decisions, influenced by income levels, spending habits, social influence, and environmental factors, is essential for crafting effective marketing strategies. Product factors, including price, brand reputation, quality, and appearance, significantly impact consumer choices. By integrating theories and findings from marketing research into Company A's marketing strategy, a comprehensive approach can be developed to appeal to environmentally conscious consumers while addressing sustainability concerns. This ensures alignment with consumer expectations and enhances market competitiveness.

Recommendations

Based on the research findings and the analysis of data, we can provide specific recommendations for researchers, companies, and industrial stakeholders to address the challenges and opportunities identified in the study:

Researchers should put a strong emphasis on improving data collection methods and data quality. This includes implementing rigorous data validation procedures, ensuring the accuracy and reliability of collected data. Utilize advanced software and tools to clean and validate data effectively. The research should aim to address the limitation of a relatively small sample size by significantly expanding the sample groups.

To address the low customer feedback utilization scores, companies should establish efficient mechanisms for collecting, analyzing, and applying customer feedback and surveys. Implement advanced analytics tools to gain deeper insights from customer data. Prioritize sustainability initiatives, going beyond product development to include sustainable supply chain practices, responsible sourcing, and eco-friendly manufacturing processes. Align with the principles of circular economy and environmental conservation.

Collaborate with policymakers and industry associations to advocate for stronger and more up-to-date environmental and social regulations. This includes actively participating in discussions and policy-making processes to ensure that regulations align with the latest sustainability practices. Encourage industrial stakeholders to incorporate eco-friendly measures across their entire supply chains and operations. Promote the use of renewable energy sources, sustainable materials, and efficient waste management practices.

References

- Astuti, R., Deoranto, P., Wicaksono, M. L. A., & Nazzal, A. (2021, April). Green marketing mix: An example of its influences on purchasing decision. In *IOP Conference Series: Earth and Environmental Science* (Vol. 733, No. 1, p. 012064).
<https://iopscience.iop.org/article/10.1088/1755-1315/733/1/012064/meta>
- Belch, G. E., & Belch, M. A. (2004). *Advertising and promotion: An integrated marketing communications perspective* 6th. *New York: McGraw-Hill*.
<https://thuviensso.hoasen.edu.vn/handle/123456789/8039>

- Heinz, Melinda, and Summer Zwanziger Elsinger. (2021). Marketing and Psychology: An Interdisciplinary Partnership. *Innovation in Aging*, 5(Suppl 1), 105.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8681087/>
- McCarthy, E. J., & Perreault, W. D. (1972). Basic marketing: a managerial approach. Irwin.
<https://www.proquest.com/openview/b24d93a0195ac7a5a2527667caf998ad/1?pq-origsite=gscholar&cbl=1816480>
- Jamroz, U. (2007). Marketing of Tourism: A Paradigm Shift toward Sustainability. *International Journal of Culture, Tourism and Hospitality Research*, 1, 117-130.
<https://www.emerald.com/insight/content/doi/10.1108/17506180710751669/full/html>
- Mujahid, M., Haskas, Y., Hamid, M., Safar, I., & Arief, A. S. (2021, April). Linking green marketing with performance: Environmental marketing model for small business. In *IOP Conference Series: Earth and Environmental Science* (Vol. 737, No. 1, p. 012024). IOP Publishing.
<https://iopscience.iop.org/article/10.1088/1755-1315/737/1/012024/meta>
- Quelch, John, and Zoey Chen. (2021). John Quelch on Marketing. Customer needs and solutions, 8, 137-139.
<https://link.springer.com/article/10.1007/s40547-021-00123-y>
- Singh, Inderpreet, and Sonia Gandhi. (2021). An analysis of consumer behaviors of green marketing. *International Journal of Forensic Engineering*, 5(1), 49-58.
<https://www.inderscienceonline.com/doi/abs/10.1504/IJFE.2021.117385>
- Vaid, Shashank Sash, Michael Ahearne, and Ryan Krause. (2020). Joint marketing and sales appointment: Uncertainty from intertwining of marketing and sales in one position. *Industrial Marketing Management*, 85, 221-239.
<https://www.sciencedirect.com/science/article/abs/pii/S0019850118308897>