



The Role of Green Marketing in Enhancing Competitive Advantage within Service Industries

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Abstract: This study explores the role of green marketing in enhancing competitive advantage within service industries, focusing on the context of Beijing, China. Drawing on the Theory of Planned Behavior, the research investigates consumer attitudes, subjective norms, and perceived behavioral control towards green marketing practices, as well as their impact on competitive advantage indicators. A quantitative research design is employed, with data collected through a structured survey questionnaire from 300 respondents across three selected companies: Huawei Technologies Co., Ltd., China Mobile, and Bank of China. The findings reveal positive attitudes towards green marketing practices, strong subjective norms favoring environmentally responsible options, and a high level of perceived behavioral control in adopting green practices. Respondents perceive competitive advantages associated with green marketing, such as influencing product/service decisions and fostering innovation. The study contributes empirical evidence to the existing literature and offers practical implications for businesses seeking to formulate effective green marketing strategies to enhance their competitive position while contributing to environmental sustainability efforts.

Keywords: Green marketing, competitive advantage, service industries, Theory of Planned Behavior, consumer behavior

I. Introduction

Green marketing, also known as sustainable marketing or environmental marketing, has gained significant attention in recent years as businesses recognize the importance of incorporating sustainability practices into their operations.^[1] In an era of increasing environmental awareness and growing concerns about climate change, consumers are becoming more conscious of the environmental impact of their purchasing decisions. This shift in consumer behavior has led service industries to recognize the potential benefits of adopting green marketing strategies to enhance their competitive advantage. The service industry, encompassing sectors such as hospitality, tourism, healthcare, and financial services, plays a crucial role in the global economy.^[2] As customers become more environmentally conscious, service providers are under pressure to align their offerings with sustainable practices and communicate their commitment to environmental stewardship. Green marketing offers a unique opportunity for service industries to differentiate themselves from competitors by promoting their environmentally friendly practices and addressing the growing demand for sustainable services.^[3]

Beijing, China, as a global hub for technology, telecommunications, and finance, provides a compelling context for studying the impact of green marketing within service industries. Empirical research on its impact on competitive advantage within service industries, particularly in the Chinese context, remains limited. Understanding the relationship between green marketing practices and competitive advantage is crucial for companies seeking sustainable growth and differentiation in the marketplace. Thus, there is a need for empirical research to explore this relationship and its implications for businesses operating in Beijing's service industries.

The objectives of this study are twofold: firstly, to empirically investigate the relationship between green marketing practices and competitive advantage within service industries, particularly in the context of Beijing, China; and secondly, to contribute to both academic knowledge and practical implications for businesses operating in service sectors. Additionally, the study seeks to explore the demographic profile of respondents and its influence on consumer perceptions and behaviors related to green marketing, thereby offering insights into the effectiveness of green marketing strategies in engaging with diverse consumer segments.

From a theoretical perspective, this study contributes to the existing body of knowledge by providing empirical evidence on the relationship between green marketing and competitive advantage within service industries, grounded in the Theory of Planned Behavior. Moreover, the findings of this study can offer valuable insights to businesses in Beijing and beyond, helping them formulate effective green marketing strategies to enhance their competitive position while contributing to environmental sustainability efforts.

II. Literature Review

2.1 Concept of Green Marketing

Green marketing, also known as environmental marketing or sustainable marketing, refers to the development and promotion of products and services that are environmentally friendly or have minimal negative impact on the environment. It involves incorporating sustainability principles into various aspects of marketing strategies, including product design,



packaging, distribution, promotion, and pricing. Green marketing aims to meet the needs of consumers while also addressing environmental concerns and promoting corporate social responsibility .[4]

2.2 Evolution of Green Marketing Practices

The concept of green marketing has evolved over the years in response to increasing environmental awareness among consumers and growing pressure on businesses to adopt sustainable practices. Initially, green marketing focused primarily on eco-friendly product attributes, such as recyclability and energy efficiency. However, as consumer demand for sustainability has grown, companies have expanded their green marketing efforts to include broader initiatives, such as corporate sustainability reports, carbon footprint reduction strategies, and partnerships with environmental organizations [5].

2.3 Theoretical Foundations (Theory of Planned Behavior)

The Theory of Planned Behavior (TPB) provides a theoretical framework for understanding and predicting human behavior. According to TPB, behavioral intentions are influenced by three key factors: attitudes towards the behavior, subjective norms, and perceived behavioral control. Attitudes refer to the individual's evaluation of the behavior, subjective norms represent perceived social pressure to perform or not perform the behavior, and perceived behavioral control reflects the individual's perception of the ease or difficulty of performing the behavior [6].

2.4 Relationship between Green Marketing and Competitive Advantage

Numerous studies have explored the relationship between green marketing practices and competitive advantage. Green marketing has been found to positively influence consumer perceptions, brand image, and purchase intentions, leading to increased market share and profitability for companies that effectively implement sustainable strategies[7]. By differentiating themselves as environmentally responsible brands, companies can gain a competitive edge in the marketplace, attract environmentally conscious consumers, and enhance long-term brand loyalty[8].

2.5 Previous Studies and Findings

Previous research has provided evidence supporting the positive impact of green marketing on competitive advantage across various industries. For example, a study by Menon and Menon [9]found that companies with strong environmental performance outperformed their competitors in terms of financial performance and market valuation. Similarly, research by Kotler and Lee [10] demonstrated that companies that effectively communicate their green initiatives to consumers can gain a competitive advantage by building trust and credibility.

III. Theoretical Framework

The Theory of Planned Behavior (TPB) ,developed by Icek Ajzen, TPB provides a comprehensive model for understanding and predicting human behavior, particularly in the context of decision-making processes related to adopting specific behaviors or actions. [11]The Theory of Planned Behavior posits that behavioral intentions are determined by three primary factors:

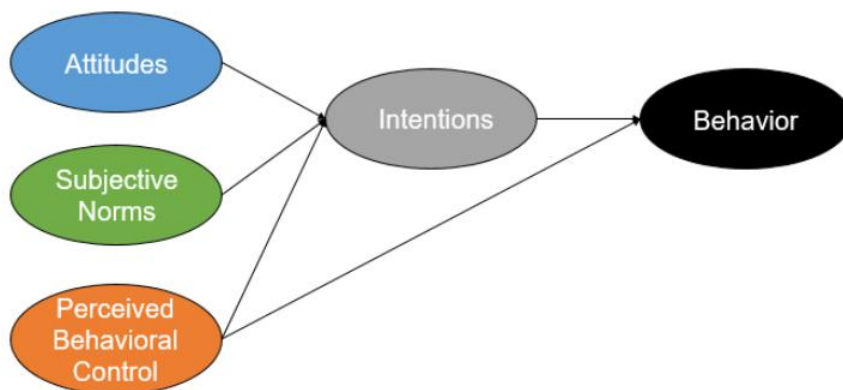


Figure 1, The Theory of Planned Behavior (Source, Simply Psychology)

- Attitudes towards the behavior: This component reflects an individual's overall evaluation of performing a specific behavior. In the context of this study, attitudes towards green marketing practices represent respondents' perceptions of the importance, value, and benefits associated with implementing environmentally friendly marketing strategies within service industries.
- Subjective norms regarding the behavior: Subjective norms refer to the perceived social pressure or influence from significant others, such as peers, family, or colleagues, to engage in or refrain from a particular behavior. In the context of green marketing, subjective norms encompass the perceived social expectations and approval/disapproval of adopting environmentally friendly marketing practices within the organizational and societal context.
- Perceived behavioral control towards adopting the behavior: Perceived behavioral control reflects individuals' beliefs about their ability to perform the behavior under consideration, taking into account internal and external factors that may facilitate or hinder their actions. In the context of this study, perceived behavioral control pertains to respondents' perceptions of their capacity to implement green marketing practices effectively within their respective

organizations.

The Theory of Planned Behavior serves as a robust theoretical framework for this study due to its comprehensive model for understanding and predicting human behavior, particularly in decision-making processes related to adopting specific actions or behaviors. TPB's three primary factors—attitudes towards the behavior, subjective norms regarding the behavior, and perceived behavioral control towards adopting the behavior—provide a structured approach to examining the underlying psychological determinants driving individuals' intentions and behaviors in the context of green marketing practices within service industries. This framework allows for a nuanced understanding of the social, psychological, and practical considerations shaping individuals' decisions and behaviors, thus informing strategies for promoting sustainability and enhancing competitive advantage within service industries.

IV. Research Methodology

4.1 Research Design: A quantitative research design is adopted to systematically investigate the relationship between green marketing practices and competitive advantage within service industries in Beijing, China. This methods allow for the collection of numerical data that can be analyzed statistically to test hypotheses and draw generalizable conclusions.

4.2 Sampling Procedure: The sampling procedure involves selecting a representative sample of respondents from each of the selected companies: Huawei Technologies Co., Ltd., China Mobile, and Bank of China. Each company will select 100 respondents, ensuring a total sample size of 300 participants. The sampling method may involve random sampling or stratified sampling techniques to ensure the sample's representativeness and minimize bias.

4.3 Data Collection Instrument (Survey Questionnaire): A structured survey questionnaire will be developed to collect data from the selected respondents. The questionnaire will include items designed to measure the following constructs:

- ◇ Demographic profile
- ◇ Attitudes towards green marketing practices
- ◇ Subjective norms regarding green marketing
- ◇ Perceived behavioral control towards adopting green practices
- ◇ Competitive advantage indicators

The survey questionnaire will be designed based on established scales and validated measures to ensure reliability and validity of the data collected.

4.4 Measurement of Variables:

Independent Variable: Green Marketing Practices

Measurement: Respondents' self-reported adoption and implementation of green marketing strategies within their respective companies, assessed using Likert-type scales or categorical response options.

Dependent Variable: Competitive Advantage

Measurement: Perceived competitive advantage indicators, such as market share, brand reputation, customer loyalty, and financial performance, assessed using Likert-4 scales or categorical response options.

4.5 Data Analysis Techniques: Descriptive statistics were employed to summarize demographic characteristics such as gender, age, educational level, and years of experience. Inferential statistics were utilized to assess the significance of the relationship between green marketing practices and competitive advantage. Factor analysis was employed to identify underlying factors within constructs like attitudes towards green marketing, subjective norms, perceived behavioral control, and competitive advantage indicators, reducing data complexity by identifying common patterns. Additionally, weighted mean values were calculated for each indicator to rank and interpret respondents' perceptions, allowing for a nuanced understanding of the impact of green marketing practices on competitive advantage within service industries.

V. Selected Companies Profile

5.1 Huawei Technologies Co., Ltd.

Huawei Technologies Co., Ltd. is a global leader in telecommunications and technology, headquartered in Shenzhen, China. With a strong focus on innovation and sustainability, Huawei offers a wide range of products and services, including telecommunications infrastructure, smart devices, and cloud computing solutions. Huawei has demonstrated a commitment to green initiatives through its "Tech4All" sustainability strategy, which aims to leverage technology to address environmental challenges and promote sustainable development. The company has implemented various green marketing practices, such as promoting energy-efficient products and reducing carbon emissions across its operations, to enhance its competitive advantage in the rapidly evolving telecommunications industry.^[12]

5.2 China Mobile

China Mobile is the largest telecommunications corporation in China, providing mobile voice and multimedia services to millions of customers nationwide. As a state-owned enterprise, China Mobile plays a vital role in advancing sustainable development and environmental conservation initiatives in the telecommunications sector. The company has adopted green marketing practices as part of its corporate social responsibility efforts, including promoting eco-friendly mobile devices and investing in renewable energy projects. China Mobile's commitment to sustainability and green innovation underscores its dedication to gaining a competitive advantage by meeting the evolving needs of environmentally conscious consumers.^[13]

5.3 Bank of China

Bank of China is one of the four largest state-owned commercial banks in China, offering a comprehensive range of financial services, including banking, insurance, and investment solutions. With a vast network of branches and subsidiaries both domestically and internationally, Bank of China plays a significant role in the global financial system.

The bank has integrated sustainability principles into its operations and business strategy, focusing on green finance, environmental risk management, and corporate governance. Bank of China's green marketing initiatives aim to enhance its competitive advantage by attracting socially responsible investors, fostering trust among stakeholders, and promoting sustainable economic growth in Beijing and beyond.^[14]

VI. Results and Discussion

Table 1 shows the demographic profile of the respondents. With representation across various demographics such as gender, age, educational background, and years of experience, the study results are likely to capture a wide range of perspectives and insights on the role of green marketing in enhancing competitive advantage within service industries. This comprehensive understanding is crucial for developing effective strategies and recommendations for businesses operating in the service sector to leverage green marketing practices for competitive success.

Table 1, Respondents profile.

Demographic Category	Frequency	Percentage
Gender		
Male	151	50.33%
Female	142	47.33%
Prefer not to answer	7	2.33%
Age		
Under 18	5	1.67%
18-24	30	10%
25-34	49	16.33%
35-44	71	23.67%
45-54	79	26.33%
55-64	40	13.33%
65 and above	26	8.67%
Educational Level		
High School Diploma or Below	21	7%
Some College or Associate Degree	60	20%
Bachelor's Degree	110	36.67%
Master's Degree	79	26.33%
Doctoral Degree	30	10%
Years of Experience		
Less than 1 year	21	7%
1-5 years	71	23.67%
6-10 years	62	20.67%
11-15 years	51	17%
16-20 years	41	13.67%
More than 20 years	54	18%
Total	300	100%

The gender distribution among the respondents shows a slightly higher representation of males (50.33%) compared to females (47.33%). A small percentage (2.33%) preferred not to disclose their gender. This balanced representation ensures diversity in perspectives and responses, enhancing the robustness of the study findings.

The age distribution indicates a diverse range of respondents across different age groups. The majority fall within the age brackets of 35-54 years, with the highest proportion being in the 45-54 age group (26.33%). This suggests that middle-aged individuals are more actively engaged in participating in the study. However, there is also notable representation from younger and older age groups, ensuring a comprehensive understanding across generations.

The educational level of the respondents is varied, with the majority holding at least a Bachelor's degree (36.67%). This indicates a well-educated sample population, which could potentially offer informed perspectives on the subject matter. Additionally, a significant portion of respondents have completed some college or associate degree (20%) and hold Master's degrees (26.33%), further diversifying the educational background of the participants.

The distribution of years of experience in the current industry reflects a balanced representation across different career stages. A notable proportion of respondents have 1-5 years of experience (23.67%), followed closely by those with 6-10

years of experience (20.67%). This suggests a mix of early-career professionals and mid-career individuals contributing to the study. Furthermore, there is considerable representation from individuals with more than 20 years of experience (18%), indicating the inclusion of seasoned professionals in the analysis.

Table 2, Attitudes towards Green Marketing Practices:

Indicator	Weighted Mean	Rank	Interpretation
Companies should prioritize environmental sustainability in marketing.	4.20	1	Strongly Agree
Eco-friendly products/services are more desirable than conventional ones.	3.75	2	Agree
Trust companies showing commitment to environmental responsibility.	4.10	1	Strongly Agree
Green marketing influences my purchasing decisions.	3.65	3	Somewhat Agree
Businesses should address environmental issues in marketing.	4.00	2	Agree

The data presented in Table 2 highlights respondents' attitudes towards green marketing practices. The weighted mean values indicate a generally positive disposition towards environmental sustainability in marketing strategies. Particularly noteworthy is the strong agreement among participants regarding the prioritization of environmental sustainability by companies in their marketing efforts, as evidenced by the highest weighted mean and rank for this indicator. Additionally, the high weighted means for trust in companies demonstrating environmental responsibility and the belief that businesses should address environmental issues in marketing underscore the importance of corporate sustainability initiatives in shaping consumer perceptions and preferences. However, the somewhat lower weighted mean for the influence of green marketing on purchasing decisions suggests a nuanced relationship between marketing strategies and consumer behavior, indicating that while green initiatives play a role, they may not be the sole determinant of purchasing decisions.

Table 3. Subjective Norms regarding Green Marketing:

Indicator	Weighted Mean	Rank	Interpretation
Important people encourage supporting companies with green initiatives.	3.95	2	Agree
Feel societal pressure to choose environmentally responsible options.	3.70	3	Somewhat Agree
Peers would approve of supporting companies with strong green campaigns.	4.15	1	Strongly Agree
Environmental sustainability is valued in my social circle.	3.80	2	Agree
Societal expectations favor companies engaging in green marketing.	3.90	3	Somewhat Agree

In Table 3, which explores subjective norms regarding green marketing, the findings reveal the influence of social factors on individual attitudes and behaviors towards environmental sustainability. The data indicate a strong consensus among respondents that their peers would approve of supporting companies with strong green campaigns, as evidenced by the highest weighted mean and rank for this indicator. This underscores the significance of social approval and peer influence in shaping consumer attitudes and behaviors towards green initiatives. Additionally, the relatively high weighted mean values for the encouragement of important people and the valuation of environmental sustainability in social circles suggest that social networks play a significant role in promoting pro-environmental behaviors. However, the slightly lower weighted means for feeling societal pressure and perceived societal expectations indicate a more nuanced understanding of social influences, suggesting that while societal norms and expectations exist, they may not exert as strong an influence on individual behaviors as peer approval and encouragement.

Table 4. . Perceived Behavioral Control towards Adopting Green Practices:

Indicator	Weighted Mean	Rank	Interpretation
Confident in choosing eco-friendly options over conventional ones.	4.05	1	Strongly Agree
Believe I have sufficient knowledge to make eco-friendly choices.	3.85	2	Agree
Perceive external factors supporting adoption of green practices.	4.20	1	Strongly Agree

Indicator	Weighted Mean	Rank	Interpretation
Feel control over engaging with companies prioritizing sustainability.	3.90	2	Agree
Believe my actions contribute to positive environmental change.	3.75	3	Somewhat Agree

Table 4 presents data on respondents' perceived behavioral control towards adopting green practices. The weighted mean values indicate a high level of confidence and perceived control among participants in making eco-friendly choices. Notably, indicators such as feeling confident in choosing eco-friendly options over conventional ones and perceiving external factors that support the adoption of green practices received the highest weighted mean and rank, suggesting a strong agreement among respondents. This implies that individuals feel empowered and supported in their efforts to engage with environmentally sustainable options. However, while respondents generally feel confident and perceive control over their engagement with companies prioritizing sustainability, the weighted mean values for these indicators are slightly lower compared to others. This suggests that while individuals may feel empowered to make eco-friendly choices, they may perceive some limitations or challenges in engaging with sustainability-focused companies, indicating potential areas for improvement in facilitating consumer participation in green initiatives.

Table 5 . Competitive Advantage Indicators:

Indicator	Weighted Mean	Rank	Interpretation
Companies with green marketing have a competitive edge.	4.10	1	Strongly Agree
Businesses with environmental commitments attract and retain customers.	3.80	3	Somewhat Agree
Environmental sustainability influences product/service decisions.	4.15	1	Strongly Agree
Companies prioritizing sustainability are innovative and forward-thinking.	3.85	2	Agree
Supporting environmentally responsible companies reflects personal values.	3.95	2	Agree

Table 5 explores competitive advantage indicators associated with green marketing practices. The data reveal a positive perception among respondents regarding the competitive advantages gained by companies that prioritize environmental sustainability. Particularly noteworthy is the strong agreement among participants regarding the competitive edge gained by companies with green marketing strategies, as indicated by the highest weighted mean and rank for this indicator. This suggests that respondents perceive environmental sustainability as a significant factor influencing consumers' product/service decisions, as evidenced by the high weighted mean for this indicator. Additionally, the belief that companies prioritizing sustainability are innovative and forward-thinking underscores the positive associations between green initiatives and perceptions of business innovation. However, while respondents generally agree that businesses with environmental commitments attract and retain customers, the weighted mean value for this indicator is slightly lower compared to others, suggesting a nuanced understanding of the relationship between sustainability commitments and consumer loyalty.

Summary of Key Findings

The study findings reveal a generally positive disposition towards green marketing practices among respondents, with strong agreement regarding the prioritization of environmental sustainability by companies in their marketing strategies. Additionally, subjective norms and perceived behavioral control play crucial roles in shaping consumer attitudes and behaviors towards green initiatives. The perceived competitive advantages associated with green marketing, such as influencing product/service decisions and fostering innovation, highlight the strategic significance of environmental sustainability in enhancing business performance within service industries.

VII. Conclusion

The study on the role of green marketing in enhancing competitive advantage within service industries in Beijing, China, has yielded significant insights that contribute to both academic knowledge and practical implications for businesses. The demographic profile of the respondents reflects a diverse sample, ensuring a comprehensive understanding of perspectives across gender, age, educational level, and years of experience. The findings underscore the importance of considering these demographic factors when developing green marketing strategies to effectively target and engage with consumers in the service sector.

This study contributes to existing literature by providing empirical evidence of the relationship between green marketing practices and competitive advantage within service industries. By examining various demographic factors and their influence on consumer perceptions and behaviors, the study offers valuable insights into the effectiveness of green marketing strategies in engaging with diverse consumer segments. Moreover, the findings contribute to a deeper

understanding of the mechanisms underlying consumer decision-making processes in the context of environmental sustainability.

Future research in this area could explore longitudinal studies to examine the long-term effects of green marketing initiatives on consumer behavior and business performance. Additionally, comparative studies across different regions or cultural contexts could provide insights into the generalizability of findings and the effectiveness of green marketing strategies in diverse market environments. Furthermore, qualitative research approaches such as interviews or focus groups could complement quantitative data by providing in-depth insights into consumer perceptions and motivations regarding green marketing practices.

For businesses operating in service industries, the study findings offer practical implications for developing and implementing green marketing strategies to gain a competitive advantage. Understanding consumer attitudes, subjective norms, and perceived behavioral control towards green initiatives can inform targeted marketing campaigns and communication strategies. Leveraging the perceived competitive advantages associated with green marketing, such as innovation and consumer loyalty, can enhance brand reputation and market positioning in an increasingly environmentally conscious marketplace. Integrating environmental sustainability into marketing strategies can not only drive business success but also contribute to broader societal and environmental goals.

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