

Independent Site Approach for Brand Internationalization Adoption of Companies: Basis for Strategic Plan

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Abstract. This study investigated the sustainability practices of China Unicom Big Data Limited Company within the telecommunications industry, focusing on their types, objectives, benefits, and challenges. Through quantitative data analysis and survey questionnaires, key findings revealed four categories of sustainability practices: energy efficiency, waste management, data security, and community engagement. While positive trends existed, improvements were needed, especially in energy efficiency and waste management. Objectives included carbon neutrality, operational efficiency, research, and employee well-being, with perceived benefits such as cost savings and reputation enhancement. Challenges included cost implications and industry evolution, though their severity was contested. The study proposed a strategic plan emphasizing a holistic approach, prioritizing carbon neutrality, strengthening regulatory compliance, and enhancing monitoring and evaluation. Recommendations included adopting a holistic approach, prioritizing carbon neutrality, strengthening regulatory compliance, and enhancing monitoring and evaluation to achieve sustainability objectives and align with global targets.

Keywords: Sustainability practices, telecommunications industry, China Unicom, challenges, strategic plan, monitoring and evaluation.

1. Introduction

In the rapidly evolving landscape of the telecommunications sector, sustainability has become a focal point for operators seeking to align their practices with environmental, social, and economic considerations (Smith et al., 2020). This research embarks on a journey to explore and dissect the sustainability strategies implemented by China Unicom Big Data Limited Company, a Fortune 500 state-owned enterprise situated in Beijing, China. The intricacies of sustainability within the telecommunications industry are

multifaceted, encompassing a spectrum of practices and initiatives that transcend mere business operations (Bansal & Song, 2017). This study endeavors to shed light on the intricacies of sustainability strategies within the context of a telecommunications giant. The research problem at the core of this study elucidates the nuanced landscape of sustainability in the telecommunications sector, focusing on four key dimensions. Firstly, it seeks to describe the current sustainability practices of telecommunication operators in terms of type and scope, objectives, benefits, and monitoring and evaluation. Secondly, it aims to explore the impact of these sustainability practices on various facets of brand value, including competitive advantage, brand awareness and loyalty, financial performance, social performance, and governance. Thirdly, it identifies challenges and barriers faced by telecommunication operators in implementing sustainability strategies. Lastly, it proposes an enhanced strategic plan as a result of the study.

The significance of this research lies in unraveling the intricate tapestry of sustainability initiatives within China Unicom and the broader telecommunications landscape. By mapping out existing strategies, the study sets the stage for understanding the industry's commitment to environmental stewardship, social responsibility, and economic viability.

In a world where consumer choices are increasingly influenced by a company's commitment to sustainable practices, the impact of these strategies on brand value is paramount (Lopez et al., 2021). This research delves into the symbiotic relationship between sustainability initiatives and brand perceptions, unraveling the layers that contribute to a telecommunications operator's reputation. Likewise, the exploration of sustainability's influence on customer relations opens avenues to comprehend the evolving dynamics between telecom operators and their clientele (Eccles et al., 2019). As delving into these aspects, the findings promise insights not only into the specific case of China Unicom but also into broader trends that shape the telecommunications industry's trajectory. Navigating through the complexities of sustainability strategies requires a comprehensive framework that transcends disciplinary boundaries (Bansal & Song, 2017). Thus, the theoretical foundation of this study draws from existing literature on corporate sustainability, brand management, and customer relations. By synthesizing these insights, the research aims to construct a theoretical lens through which the empirical findings can be interpreted.

Methodologically, the study adopts a robust approach, utilizing a survey questionnaire as the primary instrument for data collection. This will be complemented by a meticulous data analysis process, incorporating statistical treatments to derive meaningful insights. The deployment of a survey questionnaire ensures a systematic exploration of sustainability practices, allowing for a quantitative assessment of various dimensions, including brand value and customer relations.

Anticipating the unfolding of this research journey, the structure of the paper is designed to facilitate a logical progression of ideas. The forthcoming sections will embark on an extensive review of existing literature, offering a comprehensive backdrop to the research questions. The theoretical framework will then provide the scaffolding upon which the study is built, elucidating the conceptual foundations. The research methodology section will serve as a guide to the intricate process of data collection and analysis, detailing the steps taken to unravel the mysteries of sustainability strategies. Subsequently, the results section will present the empirical findings, and the discussion will engage in a dialogue with the literature, drawing connections and implications. Finally, the conclusion will encapsulate the study's contributions, limitations, and propose avenues for future research, cementing its significance in the broader academic discourse on corporate sustainability within the telecommunications sector.

2. Methodology

This study examined how China Unicom Big Data Limited Company implements sustainability strategies in the telecommunications sector. It used a quantitative research approach, surveying telecommunication practitioners within the company. The survey aimed to measure the impact of sustainability strategies on brand value and customer relations, as well as identify challenges in implementing these strategies. The survey included Likert scale and multiple-choice questions covering dimensions such as competitive advantage, brand awareness, financial and social performance, governance, and challenges. Analysis of the data involved descriptive statistics and thematic analysis to provide insights into the perceived effects of sustainability strategies and the challenges faced by China Unicom.

2.1. Sampling Procedure

The sampling procedure for this study involved utilizing an online calculator to determine the sample size required for achieving a 95% confidence interval and a 5% margin of error. Given a total population of 656 employees within China

Unicom, the sample size was calculated as 243 respondents. The selection of respondents was distributed across different functional departments crucial to the study's objectives.

2.2. Respondents

The population for this study comprised approximately 656 employees within China Unicom Big Data Limited Company in Beijing, China. Respondents were drawn from China Unicom, a prominent telecommunications company, with a focus on practitioners representing various functional departments crucial to the understanding of sustainability strategies, brand value, and customer relations. The participants were selected based on their roles and expertise, ensuring a comprehensive exploration of the research topics.

2.2.1 Research Site

This study was conducted within China Unicom Big Data Limited Company in Beijing, China, a Fortune 500 state-owned enterprise deeply entrenched in the telecommunications sector. Beijing, as the capital city of China, serves as a hub for economic, technological, and cultural activities. China Unicom's commitment to advancing technology, particularly in areas like 5G, artificial intelligence, and big data, underscores its significance in shaping the telecommunications landscape. The researcher's daily work within the company involves analyzing location and real-name information for various purposes, such as assessing business districts' vibrancy and tourist analyses.

Choosing Beijing and China Unicom as the study locale was not only based on geography but also on the unique characteristics of the locale. The company's focus on cutting-edge technologies, its state-owned status, and its major role in the telecommunications industry provided a rich context for examining sustainability strategies. The researcher's direct involvement with the company offered valuable insights into the challenges, opportunities, and practical implications of sustainability strategies in the local telecommunications sector.

3. Results and Discussion

3.1. On the current sustainability practices of telecommunication operators

The study indicates that while some sustainability practices are being adopted by telecommunication operators, there are areas needing improvement. In terms of Type and Scope, practices like energy efficiency and waste

management show potential for growth. Objectives such as achieving carbon neutrality and investing in research are recognized but not universally adopted. However, there is a strong emphasis on working with the local community. The benefits of sustainability, including cost savings and enhanced reputation, are acknowledged, but there's room for better recognition of these benefits, particularly in areas like energy efficiency and regulatory compliance. Monitoring and evaluation strategies, such as establishing KPIs and assessing environmental impact, vary in adoption rates, with a need for more focus on areas like regular environmental assessments and employee well-being. Overall, while there are promising trends, there's significant room for improvement in various aspects of sustainability practices within the telecommunication industry.

3.2 On the Impact of the Current Sustainability Practices of Telecommunication operators

Table 1

The Impact of the Current Sustainability Practices of Telecommunication operators

Indicator	Mean	Verbal Description
Competitive Advantage	3.41	Strongly agree
Brand Awareness and Loyalty	3.43	Strongly agree
Financial Performance	3.42	Strongly agree
Social Performance	3.42	Strongly agree
Governance	3.40	Strongly agree
Overall Mean	3.42	Strongly agree

Legend: 3.25-4.00 -Strongly Agree; 2.5-3.24 - Agree; 1.75-2.49 - Disagree; -1.00-1.74 - Strongly Disagree

3.2.1. Competitive Advantage

Telecommunication operators perceive their sustainability practices as significantly enhancing their competitive advantage, according to the data summarizing respondents' perceptions. The mean score of 3.41 indicates strong agreement that these practices contribute to competitive positioning, with all indicators receiving scores above 3.25. Human resource practices related to sustainability, such as attracting talent and enhancing employee satisfaction, received the highest score (3.44). Other practices like energy efficiency, regulatory compliance, environmental footprint reduction, and brand reputation enhancement also received high scores. These findings align with existing

studies indicating that sustainability practices lead to cost savings, brand reputation enhancement, risk mitigation, market differentiation, and financial stability. Overall, telecommunication operators recognize the importance of sustainability across various aspects of their operations for maintaining competitive advantage.

3.2.2. Brand Awareness and Loyalty

The respondents' perceptions of sustainability practices' impact brand awareness and loyalty among telecommunication operators. With a grand mean of 3.43, there's strong agreement that sustainability initiatives positively influence brand perception and loyalty. The highest mean scores (3.48) were for commitments to environmental and social causes and attracting partnerships, indicating their significant impact on brand loyalty and audience expansion. Prioritizing social responsibility and emphasizing leadership in sustainability also received high scores (3.37), highlighting their role in enhancing brand awareness and image retention. Additionally, attracting media attention and highlighting sustainability efforts in investor communications were noted for positively impacting brand image and attracting investment. Overall, the data suggests sustainability practices play a crucial role in shaping brand awareness and loyalty in the telecommunication industry, aligning with previous research on the positive association between sustainability and brand perception. This underscores the strategic importance of sustainability efforts in maintaining competitiveness and building a strong brand presence.

3.2.3 Financial performance

The respondents' insights revealed how sustainability practices impact the financial performance of telecommunication operators. With a grand mean of 3.42, respondents strongly agree that these practices significantly contribute to financial performance. The highest mean score (3.46) was for aligning with sustainability standards, indicating the importance of compliance in securing financial stability. Other indicators, such as optimizing energy consumption and paying attention to ESG criteria, received high scores (3.45 and 3.44), highlighting cost savings and improved access to capital. Addressing sustainability concerns and driving innovation also positively impact financial performance (mean scores of 3.39). Overall, the data suggests that sustainability practices play a crucial role in driving financial performance and resilience for telecommunication operators, aligning with previous research. This underscores

the strategic value of sustainability efforts in enhancing financial growth and mitigating risks within the industry.

3.2.4 Social Performance

The respondents' insights revealed how sustainability practices impact the social performance of telecommunication operators. With a grand mean of 3.42, respondents strongly agree that these practices significantly contribute to social welfare and development. The highest mean scores (3.44) were for indicators related to providing access to communication technologies and mitigating environmental impact, highlighting the role of operators in promoting digital inclusion and sustainability. Other indicators, such as engaging in community development initiatives and protecting user privacy, also received high scores (3.43), indicating their positive impact on social performance. Additionally, efforts in supply chain management and promoting digital literacy received mean scores of 3.40 and 3.39, respectively, underscoring the multifaceted approach of operators in addressing social issues. Overall, the data suggests that telecommunication operators play a crucial role in advancing social performance through sustainability practices, aligning with previous research. This highlights the strategic importance of sustainability efforts in addressing social challenges and contributing to community development.

3.2.5 Governance

The respondents' insights revealed how sustainability practices impact governance effectiveness within telecommunication operators. With a grand mean of 3.40, respondents strongly agree that these practices significantly contribute to governance effectiveness. The highest mean score (3.44) was for integrating sustainability commitments into corporate strategies, highlighting the importance of transparent communication and strategic alignment. Other indicators, such as facilitating board oversight and engaging with stakeholders, also received high scores (3.42 and 3.40), emphasizing the role of stakeholder engagement and effective oversight in driving sustainability initiatives. Additionally, governance mechanisms aligning financial and sustainability objectives and incorporating risk management processes received mean scores of 3.39 and 3.37, respectively, underscoring their importance in promoting sustainable business practices and organizational resilience. However, there's room for improvement in fostering a culture of innovation prioritizing sustainability, as indicated by a relatively lower mean score of 3.35. Overall, the

data suggests that sustainability practices play a crucial role in enhancing governance effectiveness within telecommunication operators, aligning with previous research. This highlights the strategic value of integrating sustainability goals into corporate strategies and fostering transparency, accountability, and innovation to drive long-term value creation.

3.3. On the Challenges and barriers faced by telecommunication operators in implementing sustainability strategies

The table provides insights into the challenges and barriers faced by telecommunication operators in implementing sustainability strategies. With a grand mean of 2.07, respondents generally disagree that these challenges significantly hinder strategy implementation. None of the individual indicators received mean scores above 2.5, indicating a lack of strong consensus on specific challenges. The lowest mean score (1.86) was for the challenge of technological advancements, suggesting it's not perceived as a significant barrier. Similarly, challenges related to defining ROI and competition in talent recruitment received relatively low mean scores (2.03 and 2.04), indicating a moderate level of perceived difficulty. However, challenges like cost implications and industry evolution received slightly higher mean scores (2.11 and 2.12), suggesting they may pose somewhat greater obstacles. Overall, while challenges exist, telecommunication operators perceive varying degrees of difficulty in implementing sustainability strategies. These findings underscore the need for strategic planning and innovation to address these challenges and drive sustainable development in the industry.

3.4. Proposed Strategic Plan

The proposed strategic plan for enhancing sustainable development in the telecommunication industry addresses key challenges identified in the study. It emphasizes the need for a holistic approach to sustainability, with specific focus areas including energy efficiency, waste management, carbon neutrality, regulatory compliance, and monitoring and evaluation. Strategies such as cross-functional collaboration, technology integration, stakeholder engagement, and data-driven decision-making are proposed to achieve sustainability objectives. The plan outlines clear objectives, strategies, key activities, timelines, responsible parties, and verifiable indicators for each focus area, providing a comprehensive framework for telecommunication companies to enhance their sustainability efforts.

4. Conclusions

The study reveals that telecommunication operators have implemented various sustainability practices, including energy-efficient technologies, recycling, data security measures, and community engagement. These practices aim to achieve objectives such as carbon neutrality, R&D investment, and employee well-being. The benefits include cost savings, reputation enhancement, and regulatory compliance. Respondents perceive these practices positively, attributing them to competitive advantage, brand loyalty, financial and social performance, and good governance. They disagree with challenges in implementation. A proposed strategic plan emphasizes energy efficiency, waste management, carbon neutrality, regulatory compliance, and monitoring to address sustainability challenges.

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