

Digital marketing practices, content management strategies and employee marketing engagement: Basis for green branding framework

Torres-Tipan, Dfezie ✉

Graduate School, Lyceum of the Philippines University - Batangas, Philippines



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Abstract

This study investigated the development of a Green Branding Framework for Higher Education Institutions (HEIs) through an examination of digital marketing practices, content management strategies, and employee marketing engagement. The research evaluated specific digital marketing practices, including social media marketing, email marketing, and search engine optimization. Content management strategies were analyzed by assessing HEI strategy communication, content production, content distribution, and promotion. Employee marketing engagement was examined through the lens of employee advocacy, green behavior, and empowerment and participation. Employing a descriptive research design, data were collected via digital survey questionnaires from 312 full-time administrators, staff, and faculty members across five HEIs. The study utilized Spearman rho to determine the significant relationship, and all analyses were performed using the SPSS version 28 to assess the objectives. The findings revealed that there is general agreement from the respondents on the digital marketing practices currently in use. Also, the respondents showed agreement significantly on the content management strategies used by Higher Education Institution (HEI) in all the examined dimensions. Further, the study demonstrated a general level of agreement among respondents regarding the organization's employee marketing engagement. Likewise, highly significant relationships between the three main areas of investigation, notably the strong correlation between social media marketing and both content distribution and promotion, and employee green behavior were discovered. The resulting Green Branding Framework effectively integrates these elements, offering a strategic approach for HEIs to enhance sustainability initiatives and improve their competitive positioning.

Keywords: green branding, Higher Education Institutions (HEIs), digital marketing practices, content management strategies, employee marketing engagement, sustainability, social media marketing, content distribution and promotion, green behavior

Digital marketing practices, content management strategies and employee marketing engagement: Basis for green branding framework

1. Introduction

Green branding, the strategic integration of environmental considerations into an institution's identity and communications, is increasingly significant within the competitive landscape of higher education institutions (HEIs). Distinct from traditional branding focused on academic prestige or career outcomes, green branding highlights an institution's commitment to sustainability, ecological responsibility, and environmental stewardship. It can foster stakeholder engagement by aligning institutional values with community priorities (Roy, 2023), potentially strengthening relationships and collaborative sustainability efforts.

Despite growing recognition of its importance, the current implementation of green branding in HEIs often lacks a cohesive, strategic framework. While institutions increasingly leverage digital platforms, integrate sustainability into curricula, and foster environmental responsibility (Yaping et al., 2023), a comprehensive model specifically tailored to HEIs remains elusive. Existing literature highlights successful initiatives (Roy, 2023) but points to a critical gap: the lack of an integrated approach that synergistically combines key operational areas. This study addresses this gap by examining the interplay between **digital marketing practices**, **content management strategies**, and **employee marketing engagement** as foundational components for a scalable green branding framework in the HEI context. Digital marketing practices adapt traditional marketing for modern digital customers using tools like social media, email, and SEO to create customer-centric strategies enabling online commerce and comparison. Content management strategies involve the strategic communication, production, distribution, and promotion of content to shape stakeholder perceptions, build trust, and enhance an HEI's green brand image by showcasing sustainability efforts. Employee marketing engagement is the active involvement and authentic advocacy of employees in promoting the organization's brand, particularly its sustainability initiatives and eco-conscious image, through their participation and behavior.

The impetus for this research stems from a direct professional experience within an HEI, transitioning from leading sustainability initiatives to heading content marketing. This unique vantage point reveals a disconnect: while substantial sustainability efforts underway, potentially enhancing institutional reputation, attracting values-driven students, and contributing to a sustainable future, their strategic connection to branding and marketing has never been fully established or leveraged. Recognizing this missed opportunity underscores the rationale for developing a practical framework. This study, therefore, seeks to provide HEIs with an evidence-based roadmap for integrating sustainability into their core brand identity and communication strategies by analyzing the interplay of digital marketing, content management, and employee engagement. The significance of this study lies in its potential to guide HEIs in leveraging green branding to enhance their reputation, attract students, and contribute to a more sustainable future.

Objectives of the Study - This research aimed to assess digital marketing practices, content management strategies, and employee marketing engagement as foundational elements for developing a Green Branding Framework in Higher Education Institutions (HEIs). Specifically, the study sought to evaluate digital marketing practices, including social media marketing, email marketing, and search engine optimization; determined the content management strategies by examining the communication of HEI strategy, content production, content distribution, and promotion; described employee marketing engagement, focusing on employee advocacy, green behavior, and empowerment and participation; tested the significant relationships between digital marketing practices, content management strategies, and employee marketing engagement; and developed a comprehensive Green Branding Framework for HEIs that integrates these elements to foster a culture of sustainability and enhance the organization's competitive advantage in the market.

2. Methods

Research Design - This study employed a descriptive research design to elucidate the characteristics of a defined subject or group. Specifically, the research delineated respondents' assessments of digital marketing practices, content management strategies, and employee marketing engagement. The researcher gathered information from the respondents by providing survey questionnaires digitally. This descriptive kind of research was helpful in collecting the respondents' data efficiently.

Participants of the Study - The population of the study consisted of full-time administrators, staff and faculty members within the administrative and academic units of a private Higher Education Institutional system, specifically five of its schools located in the CALABARZON, NCR and Visayas regions. The HEIs were considered based on past and existing sustainability initiatives. The population sizes of the HEIs were: HEI1=503; HEI2=265; HEI3=191; HEI4=193; and, HEI5=501, totaling 1,653. From this pool, a representative sample size of 312 was determined using the Raosoft sample size generator, allowing for a 5% margin of error and a 95% confidence level. The study focused on full-time administrators, staff and faculty members. The rationale for choosing these groups is grounded in the expectation that they generally have longer tenures within their respective institutions compared to other employee categories. This extended service implies they are likely more familiar and knowledgeable about the ongoing digital marketing and content management initiatives employed by their school. Furthermore, they would have had more opportunity to observe or participate in the engagement of employees in marketing the school to its wider community, providing richer, experience-based data. Employing administrators and full-time faculty as the core respondent group aligns with the study's goals, as this demographic is most likely to have firsthand experience with institutional marketing initiatives. Their involvement provides a robust foundation for exploring how academic and administrative units collaboratively contribute to enhancing the school system's presence and outreach.

Instruments of the Study - The study utilized a self-made survey questionnaire from different literature readings, as the research instrument to help appropriately measure the variables of the study. The questionnaire consisted of 45 items, designed to measure digital marketing practices, content management strategies, and employee marketing engagement within Higher Education Institutions, specifically focusing on their green branding initiatives. The questionnaire is divided into four parts, each addressing a specific dimension of the research topic. Digital marketing practices in this study focused on the utilization of social media, email marketing, and Search Engine Optimization (SEO) to promote sustainability initiatives. Questions are informed by the works of Cone Communications (2017), Confetto et al. (2023), Lee et al. (2016), Ktisti et al. (2022), Papadas et al. (2019), Marolt et al. (2022), Brügger et al. (2021), Chaffey et al. (2017), Sharma (2023), Wong et al. (2023), Capper (2023), and Harbi et al. (2022), probing the effectiveness of these channels in communicating environmental values, engaging target audiences, and driving eco-conscious behavior. Notably, the works of Confetto et al. (2023) and Papadas et al. (2019) are referenced multiple times in this section, highlighting their significance in understanding digital marketing practices for sustainability.

Content management strategies focused on how HEIs communicate their sustainability strategy, content production, and, content distribution and promotion. This section, referred to the researches of Sharma (2023), Cheung et al. (2020), Zerfass et al. (2018), and Papadas et al. (2019), discussing the alignment of messaging across channels, the quality and diversity of content, and the strategic use of distribution platforms to maximize reach. Notably, the research of Papadas et al. (2019) was referenced across multiple parts of the questionnaire, underscoring its broad relevance to green branding practices. In Employee marketing engagement, the focus was the role of employees as advocates for green initiatives, green behavior modelling, and, empowerment and participation. Questions in this section were guided by research from Sharma (2023), Yang et al. (2018), Rodrigues et al. (2023), Confetto et al. (2023), Ishaque et al. (2022), Dasanayaka et al. (2023), Zappalà et al. (2023), Brügger et al. (2021), Gómez-Aguilella (2024), Chen et al. (2022) and Kyriacou et al. (2023). The items gauged employees' knowledge and willingness to share information about sustainability efforts, their participation in green behavior modeling, and their sense of empowerment to contribute to the organization's

green goals. The works of Dasanayaka et al. (2023) and Zappalà et al. (2023) provided deep insight into understanding employee engagement in sustainability initiatives.

The questionnaire variables were assessed using a five-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (5). These items were incorporated in the initial survey instrument. The study placed emphasis on procedures for data collection, including the study's objective, questionnaire administration, and ethical considerations. The confidentiality of all participants was strictly maintained. Participation in this research is entirely voluntary, and respondents are free to withdraw at any time without prejudice. By administering this questionnaire to a diverse sample of HEI personnel, the study aims to gather robust data that informed the development of a comprehensive green branding framework. The findings will shed light on the current state of digital marketing, content management, and employee engagement in HEIs as they pertain to sustainability goals. Additionally, the research identified areas for improvement and provide actionable recommendations for enhancing green branding efforts in the higher education sector.

Table 1 displays the results of Cronbach's Alpha for the adapted survey questionnaire. Based on the results, the survey instrument on Digital Marketing Practices, Content Management Strategies and Employee Marketing Engagement demonstrates exceptional reliability, with an overall Cronbach's Alpha value of (0.975), indicating that the calculated alpha coefficients affirm the reliability of all questions measuring the variables, as they consistently exceed the value of 0.70, as posited by George and Mallery (2003).

Table 1

Reliability Summary Table

Indicators	Cronbach Alpha	Remarks
Digital Marketing Practices, Content Management Strategies and Employee Marketing Engagement: Basis for Green Branding Framework Per Variable	.975	Excellent
Digital Marketing Practices	.952	Excellent
Social Media	.854	Good
Email Marketing	.915	Excellent
Search Engine Optimization	.896	Good
Content Management Strategies	.957	Excellent
Communication of HEI Strategy	.866	Good
Content Production	.915	Excellent
Content Distribution and Promotion	.918	Good
Employee Marketing Engagement	.944	Excellent
Employee Advocacy	.818	Good
Green Behavior Modeling	.853	Good
Empowerment and Participation	.954	Excellent

George and Mallery (2003) provide the following rules of thumb: “_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and _ < .5 – Unacceptable”

Notably, individual constructs show excellent to good reliability, supporting strong construct validity. Digital Marketing Practices were noted Excellent at (0.952), and affirmed by Social Media at (0.854), Email Marketing at (0.915) and Search Engine Optimization at (0.896). Content Management Strategies were noted Excellent at (0.957), and confirmed by Communication of HEI Strategy at (.866), Content Production at (0.915) and Content Distribution and Promotion at (0.918). Lastly, Employee Marketing Engagement was noted Excellent at (0.944), and affirmed by Employee Advocacy at (0.818), Green Behavior Modeling at (0.853) and Empowerment and Participation at (0.954). These results indicate sub-constructs also demonstrate good to excellent reliability. Notable are Email Marketing (0.915), Content Production (0.915), Content Distribution and Promotion (0.918), and Empowerment and Participation (0.954). Inter-item correlation matrices reveal strong relationships among items within constructs, further supporting the instrument's internal consistency and validity. Thus, the researcher can now proceed to the actual survey using the aforementioned instrument.

Data Gathering Procedure - The study utilized a convenience purposive sampling process to select respondents from the entire population of employees in the Higher Education Institution. Full-time employees,

comprising of administrators, staff and faculty, in HEIs that have sustainability initiatives, had an equal chance to participate in the survey. This approach ensured a representative sample that are qualified to respond to the research questionnaire and can address the objectives of the research. The researcher initiated the data gathering process by sending a formal request to participate in the survey to various HEIs' representatives via email. The request included a brief introduction of the research topic, the purpose of the study, copy of the approved questionnaire and ethical considerations. Upon receiving approval and endorsement, the researcher proceeded with the data collection. Respondents were invited to participate in the study via email. The invitation included a brief explanation of the study's purpose, the importance of their participation, and assurances of confidentiality and anonymity. Respondents were provided with a link to a digital questionnaire, hosted on Google Forms. Only questionnaires that were fully accomplished were included in the data analysis and interpretation. This ensured the reliability and validity of the collected data. Responses were compiled and stored in a secure database for analysis.

Data Analysis - The study employed various statistical tools to analyze the data. Weighted mean and rank were used to assess digital marketing practices in terms of social media marketing, email marketing, and search engine optimization; to determine the content management strategies in terms of communication of HEI strategy, content production, content distribution and promotion; and to describe the employee marketing engagement in terms of employee advocacy, green behavior, and, empowerment and participation. This presented a comprehensive analysis of the central tendency (Bennett et al.,2020) and dispersion of each variable while simultaneously accounting for both the relative significance of each metric and the overall performance of each variable. Result of Shapiro-Wilk Test showed that p-values of all variables were less than 0.05 which means that the data set was not normally distributed. Since the data was derived come from multiple distinct HEI groups resulting in a multimodal distribution, the Spearman rho was used as part of the non-parametric tests (Al, 2023a) to determine the significant relationship and measure the strength and direction of the relationship between the variables, even when the data is not normally distributed. All analyses were performed using SPSS version 28.

Ethical Considerations - In adherence to rigorous ethical standards, all data collected during this research were used exclusively for scholarly purposes, ensuring the preservation of research integrity and quality. Prior to data collection, formal permission was sought from the relevant HEI authorities to guarantee the preparedness of target respondents. Respondent confidentiality and anonymity were upheld by omitting the collection of personally identifiable information in the questionnaires. This was indicated in the first part of the questionnaire to inform all the respondents of the intent of the researcher regarding the issue. Participation was voluntary, allowing respondents the freedom to decline or withdraw at any stage without consequence. Utmost care was taken to safeguard the well-being and security of all participants, ensuring that no harm or distress is caused during the course of the research. Primary and secondary research data were stored and secured and confidential information were destroyed and disposed of securely.

3. Results and discussion

Table 2

Summary Table of Digital Marketing Practices

Indicators	Weighted Mean	Verbal Interpretation	Rank
Social Media Marketing	4.08	Agree	1
Email Marketing	3.87	Agree	3
Search Engine Optimization	3.99	Agree	2
Composite Mean	3.98	Agree	

Legend: 4.50-5.00=Strongly Agree; 3.50-4.49=Agree; 2.50-3.49=Neutral; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Table 2 presents the composite mean of the digital marketing practices variables, where respondents agree across all variables at 3.98. Social media marketing ranked highest (4.08), search engine optimization followed (3.99) and email marketing ranked the lowest (3.87). The results suggest that the respondents, on average, "Agree" more strongly with the effectiveness or implementation of social media marketing practices than email

marketing practices. Social media marketing is agreed to be a more effective platform for sustainability communication, and respondents see it as enabling HEIs to engage stakeholders through real-time interaction and community-building. Its wide reach, viral sharing, and visually engaging content enhance visibility and participation in green initiatives, fostering a strong connection with audiences (Nhuong et. al.,2024; Maundu, 2020). On the other hand, email marketing may suffer from inbox clutter, where recipients tend to overlook or delete emails without opening them. Coupled with the challenge of creating consistently relevant and compelling content, this approach can result in significantly lower engagement compared to social media's interactive nature (Bottom Line Marketing, 2023).

Table 3*Summary Table of Content Management Strategies*

Indicators	Weighted Mean	Verbal Interpretation	Rank
Communication of HEI Strategy	4.08	Agree	1
Content Production	3.99	Agree	2
Content Distribution and Promotion	3.95	Agree	3
Composite Mean	4.01	Agree	

Legend: 4.50-5.00=Strongly Agree; 3.50-4.49=Agree; 2.50-3.49=Neutral; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Table 3 presents the composite mean of content management strategies variables, where respondents agree across all variables at 4.01. Communication of HEI strategy ranked highest (4.08), content production followed (3.99) and content distribution and promotion ranked the lowest (3.95). Communication of HEI Strategy ranks highest as it serves as the foundation of content management in green branding. Salem (2020) indicates that effective content management allows HEIs to clearly articulate their sustainability principles, engage stakeholders, and stand out competitively. While described as essential for reach and impact (Ismail,2021), effective content distribution and promotion require strategically selecting appropriate channels based on audience demographics and preferences (Cheung et al.,2020) and utilizing various platforms and tactics like social media, paid advertising, or influencer marketing (Cheung et al.,2020; Tsimonis et al.,2014). Complexity and resource requirements of this execution phase might lead to the slightly lower rank than the other two variables. Content distribution and promotion fundamentally rely on having a clear strategy to communicate and high-quality, engaging content to distribute. It could be perceived as a subsequent, dependent step, potentially ranking slightly lower in priority compared to establishing the core strategy and creating the content itself.

Table 4*Summary Table of Employee Marketing Engagement*

Indicators	Weighted Mean	Verbal Interpretation	Rank
Employee Advocacy	4.00	Agree	2
Green Behavior	4.05	Agree	1
Empowerment and Participation	3.77	Agree	3
Composite Mean	3.94	Agree	

Legend: 4.50-5.00=Strongly Agree; 3.50-4.49=Agree; 2.50-3.49=Neutral; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Table 4 presents the composite mean of the employee marketing engagement (EME) variables, where respondents agree across all variables at 3.94. Green behavior ranked highest (4.05), followed by employee advocacy (4.00) and empowerment and participation ranked the lowest (3.77). The results suggest that the respondents, on average, "Agree" more strongly on the employee marketing engagement on green behavior than empowerment and participation. Green behavior ranks highest due to its alignment with influential factors such as leadership modeling and rewards-based strategies, while empowerment and participation rank lowest due to deficiencies in feedback mechanisms and perceived input value. Chen et al. (2022) highlighted that leadership significantly shapes employee attitudes and behaviors. Dasanayaka et al. (2023) indicated that when leaders actively model green behavior, communicate its importance, and employ green transformational leadership styles, they effectively inspire and motivate employees to emulate these behaviors and achieve green goals.

The study by Rodrigues et. al. (2023) and Welmilla et al. (2020) pointed out that empowerment and

participation entails employees feeling empowered to contribute ideas, participate in decision-making, and take ownership. Achieving this deep sense of shared purpose and investment across a workforce may be inherently more challenging than encouraging specific actions (Green Behavior) or acting as advocates (Employee Advocacy), potentially explaining its lower relative ranking, despite still falling within the "Agree" range.

The Spearman's Rank Order Correlation analysis reveals significant associations among digital marketing practices, content management strategies, and employee marketing engagement. Digital marketing practices demonstrate a strong positive correlation with content management strategies, with content distribution and promotion exhibiting the highest relationship with social media marketing ($\rho=.815$, $p<.001$). The result suggests that the strategic utilization of social media platforms significantly enhances content reach and promotion, underscoring the importance of a well-integrated, synergistic framework in which digital marketing initiatives are seamlessly aligned with the strategic communication, production, and dissemination of content within Higher Education Institutions (HEIs). Salem (2020) underscored that social media platforms enable HEIs to share sustainability narratives through interactive formats such as storytelling, user-generated content, and engagement campaigns, reinforcing the idea that the effectiveness of social media marketing depends on the institution's ability to distribute and promote meaningful content, ensuring a strong synergy between content strategy and social media execution. Similarly, among digital marketing practices and employee marketing engagement, social media marketing presents the strongest correlation with green behavior ($\rho=.760$, $p<.001$), whereas email marketing shows the weakest relationship with employee advocacy ($\rho=.458$, $p<.001$). The findings highlight the pivotal role of social media in shaping key dimensions of employee engagement that prioritizes and advances environmental stewardship, with a pronounced impact on the green behaviors within the HEIs.

Kurniawati et al. (2022) highlighted the role of social media platforms in promoting institutional messaging about sustainability on social media that resonates with employees, influencing their behaviors and reinforcing their participation in green initiatives. Additionally, content management strategies significantly impact employee engagement, with content distribution and promotion displaying the highest correlation with green behavior ($\rho=.760$, $p<.001$), while content production has the weakest association with empowerment and participation ($\rho=.500$, $p<.001$). The findings indicate that the strategic dissemination of content plays a critical role in strengthening employees' commitment to sustainable practices within the HEI. Furthermore, while all facets of content management exhibit a significant relationship with employee engagement, the approaches employed in content distribution and promotion demonstrate the most pronounced influence on shaping employees' pro-environmental behaviors. Welmilla et al. (2020) highlighted the power of employee advocacy in amplifying green branding efforts. Employees, when engaged, serve as brand ambassadors by sharing sustainability stories through internal communication channels and social media.

The results suggest that digital marketing practices, particularly social media marketing, are highly effective in enhancing both content management strategies and employee marketing engagement. Similarly, content management strategies—especially content distribution and promotion—play a critical role in fostering employee engagement. Green behavior consistently emerges as the variable most strongly correlated across all dimensions, underscoring its importance in aligning organizational practices with sustainability goals.

Table 5 presents the relationship between digital marketing practices and content management strategies, highlighting the strength and significance of their correlations. The results indicate a highly significant correlation across all variables, with p-values less than 0.001. Social media marketing demonstrates strong positive relationships with communication of the higher education institution (HEI) strategy ($\rho=.786$), content production ($\rho=.778$), and content distribution and promotion ($\rho=.815$). Similarly, email marketing is significantly correlated with communication of HEI strategy ($\rho=.737$), content production ($\rho=.717$), and content distribution and promotion ($\rho=.747$). Likewise, search engine optimization (SEO) shows strong relationships with communication of HEI strategy ($\rho=.739$), content production ($\rho=.735$), and content distribution and promotion ($\rho=.783$). Results indicate that social media, email marketing, and SEO can

strengthen HEI content management, more so in reach and promotion. The highly significant relationship between social media marketing and content distribution highlights the need for HEIs to align social media and content strategy teams. HEI social media platforms amplify institutional messages and broadens reach, and investing in social media expertise, creating platform-specific content tailored to audience preferences may improve visibility, enhance branding, support student recruitment, and strengthen stakeholder engagement, maximizing the overall effectiveness of digital marketing efforts. Cheung et al. (2020) supported that HEIs can effectively amplify, thereby distribute and promote their sustainability content and messaging through various digital channels, including social media marketing, paid advertising, and influencer collaborations. The platforms serve as key vehicles for delivering relevant and engaging content to target audiences. Maundu (2020) mentioned how digital marketing allows real-time tracking and adaptation of content strategies, ensuring that promotional efforts remain effective and relevant.

Table 5*Relationship Between Digital Marketing Practices and Content Management Strategies*

Variables	rho	p-value	Interpretation
Social Media Marketing			
Communication of HEI Strategy	.786**	<.001	Highly Significant
Content Production	.778**	<.001	Highly Significant
Content Distribution and Promotion	.815**	<.001	Highly Significant
Email Marketing			
Communication of HEI Strategy	.737**	<.001	Highly Significant
Content Production	.717**	<.001	Highly Significant
Content Distribution and Promotion	.747**	<.001	Highly Significant
Search Engine Optimization			
Communication of HEI Strategy	.739**	<.001	Highly Significant
Content Production	.735**	<.001	Highly Significant
Content Distribution and Promotion	.783**	<.001	Highly Significant

Legend: Significant at $p\text{-value} < 0.01$

Table 6*Relationship Between Digital Marketing Practices and Employee Marketing Engagement*

Variables	rho	p-value	Interpretation
Social Media Marketing			
Employee Advocacy	.593**	<.001	Highly Significant
Green Behavior	.760**	<.001	Highly Significant
Empowerment and Participation	.566**	<.001	Highly Significant
Email Marketing			
Employee Advocacy	.458**	<.001	Highly Significant
Green Behavior	.660**	<.001	Highly Significant
Empowerment and Participation	.462**	<.001	Highly Significant
Search Engine Optimization			
Employee Advocacy	.498**	<.001	Highly Significant
Green Behavior	.697**	<.001	Highly Significant
Empowerment and Participation	.528**	<.001	Highly Significant

Legend: Significant at $p\text{-value} < 0.01$

Table 6 presents the strong relationship between various digital marketing practices and employee marketing engagement. Social media marketing exhibits a highly significant correlation with employee advocacy ($\rho=.593, p<.001$), green behavior ($\rho=.760, p<.001$), and empowerment and participation ($\rho=.566, p<.001$). Similarly, email marketing also shows a highly significant relationship with all three engagement variables, though with slightly lower correlation coefficients: employee advocacy ($\rho=.458, p<.001$), green behavior ($\rho=.660, p<.001$), and empowerment and participation ($\rho=.462, p<.001$). Search engine optimization (SEO) also demonstrates moderate to strong correlations with employee advocacy ($\rho=.498, p<.001$), green behavior ($\rho=.697, p<.001$), and empowerment and participation ($\rho=.528, p<.001$). The results suggests that the HEI's social media activities have a strong link with the propensity of its employees to engage in green behaviors. This could signify that institutional messaging about sustainability on social media resonates with employees and

influences their actions, or perhaps employees who are already environmentally conscious are more engaged with the HEIs social media presence regarding sustainability. Strategically, this highlights an opportunity for HEIs to leverage social media not merely for external branding but also as a potent internal communication channel to cultivate and reinforce a culture of sustainability and encourage desired green behaviors among the workforce. Welmilla et al. (2020) supports the highly significant correlation between social media marketing and employee green behavior emphasizing that employees who are engaged with their institution's sustainability efforts act as authentic brand ambassadors. The study further shows that employee-generated content on social media is perceived as more credible and trustworthy than traditional marketing messages. This suggests that employees who are already environmentally conscious are more likely to interact with and contribute to their HEI's social media presence on sustainability, reinforcing the bidirectional relationship between social media engagement and green behavior.

Table 7*Relationship Between Content Management Strategies and Employee Marketing Engagement*

Variables	rho	p-value	Interpretation
Communication of HEI Strategy			
Employee Advocacy	.590**	<.001	Highly Significant
Green Behavior	.734**	<.001	Highly Significant
Empowerment and Participation	.523**	<.001	Highly Significant
Content Production			
Employee Advocacy	.547**	<.001	Highly Significant
Green Behavior	.672**	<.001	Highly Significant
Empowerment and Participation	.500**	<.001	Highly Significant
Content Distribution and Promotion			
Employee Advocacy	.607**	<.001	Highly Significant
Green Behavior	.760**	<.001	Highly Significant
Empowerment and Participation	.600**	<.001	Highly Significant

Legend: Significant at $p\text{-value} < 0.01$

Table 7 presents the relationship between content management strategies and employee marketing engagement, revealing highly significant correlations across all variables. The communication of the Higher Education Institution (HEI) strategy demonstrates a moderate to strong relationship with employee advocacy ($\rho = .590$, $p < .001$), green behavior ($\rho = .734$, $p < .001$), and empowerment and participation ($\rho = .523$, $p < .001$). Content production also shows a highly significant relationship with employee advocacy ($\rho = .547$, $p < .001$), green behavior ($\rho = .672$, $p < .001$), and empowerment and participation ($\rho = .500$, $p < .001$). Content distribution and promotion exhibit the strongest correlations, particularly with green behavior ($\rho = .760$, $p < .001$), followed by employee advocacy ($\rho = .607$, $p < .001$) and empowerment and participation ($\rho = .600$, $p < .001$). The results indicate that the manner in which sustainability-related content is disseminated and promoted within the HEI is significantly associated with employees adopting green behaviors. It emphasizes the critical role of internal communication and strategic content dissemination in translating institutional green objectives into tangible employee actions. Strategically, the results imply that HEIs seeking to enhance employee green behavior should prioritize the development and implementation of effective internal content distribution and promotion strategies, ensuring that messages about sustainability are clear, engaging, and reach employees through appropriate channels. Cheung et al. (2020) mentioned that strategic content distribution is crucial for effectively conveying green branding messages within HEIs and highlighted that accessible, engaging sustainability content across multiple platforms enhances employee adoption of green behaviors. Additionally, Dasanayaka et al. (2023) suggested that leadership-driven sustainability initiatives, including communication, training, and incentives, foster a culture of environmental responsibility. Consistent, strategic messaging strengthens behavior change, reinforcing the role of content dissemination in embedding sustainability into institutional practices and employee routines.

Proposed Green Branding Framework

Based on the study's findings, the researcher developed a framework that illustrates the interrelationships

between Digital Marketing Practices, Content Management Strategies, and Employee Marketing Engagement, and how these elements collectively contribute to the development of a Green Branding Framework for Higher Education Institutions (HEIs). Anchored in the research objectives, it underscores the strategic integration of these elements to institutionalize sustainability, fortify brand positioning, and establish a competitive edge in the academic sector.

The relationships among the three variables of the study are presented in Figure 1. The proposed Green Branding Framework for Higher Education Institutions (HEIs) integrates digital marketing practices, content management strategies, and employee marketing engagement to create a culture of sustainability and improve brand image. This framework highlights the interconnectedness of these elements and provides actionable guidelines for institutions aiming to achieve competitive advantages in the education market.

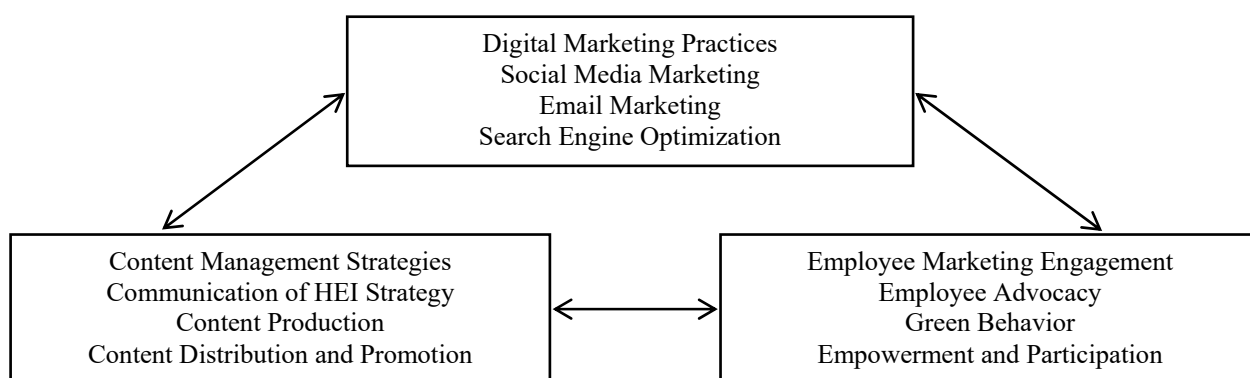


Figure 1. Proposed Green Branding Framework

The framework incorporates digital marketing practices, which include social media marketing, email marketing, and search engine optimization (SEO), all of which play pivotal roles in enhancing the visibility and reach of HEIs' sustainability initiatives. The framework also incorporates content management strategies that encompass the communication of HEI strategy, content production, and content distribution and promotion. For example, consistent messaging about environmental sustainability contributes to solid brand perception, with content distribution and promotion aligning employee actions with sustainability goals. Lastly, the framework encompasses employee marketing engagement. Its dimensions such as empowerment and participation, employee advocacy, and green behavior, create an internal culture of sustainability, transforming employees into effective brand ambassadors for green branding efforts.

The interconnectedness among key variables within the Green Branding Framework provides a visualization of their dynamic relationships. Digital marketing practices, the variables placed at the top, influences both content management strategies and employee marketing engagement. This influence is denoted through double-headed arrows, signifying mutual interaction. Situated below digital marketing practices is content management strategies, which demonstrates relationships with both digital marketing practices and employee marketing engagement. Additionally, there is a double-headed arrow connecting employee marketing engagement, highlighting their bidirectional relationship and mutual reinforcement. Further, the findings of the research highlight distinct relationships among variables, suggesting their roles as possibly independent and dependent factors. Digital marketing practices and content management strategies act as independent variables, driving outcomes such as social media marketing's influence on content distribution. Green behavior, a variable of employee marketing engagement, emerge as a dependent variables, shaped by the effective execution of these strategies. This dynamic interplay underscores the causal and relational significance of these variables.

The researcher stresses that the subject of the study, Higher education institutions (HEIs), face unique challenges in aligning their brand identity with evolving societal values, particularly in sustainability. Green

branding—a novel yet essential framework—integrates environmental stewardship into institutional branding, distinguishing HEIs from competitors focused solely on prestige or career outcomes. This approach fosters stakeholder engagement and positions HEIs as leaders in sustainability education. As global demand for ethical practices grows, green branding becomes a strategic necessity, bridging sustainability goals with competitive differentiation in the educational sector.

In its turn, HEIs can deploy the Green Branding Framework strategically to achieve core objectives: **Cultivating a Culture of Sustainability:** By focusing on EME, particularly Green Behavior and Empowerment/Participation, HEIs can embed sustainability into their core operations. Effective internal communication via content management and leveraging digital platforms (especially social media) to promote green initiatives internally can significantly influence employee behavior. Leadership commitment and integrating green practices into daily routines are crucial.

Building a High Brand Image: Consistent communication of sustainability strategy and initiatives through quality content production builds a positive brand perception regarding environmental responsibility. Employee advocacy, where employees share information and act as ambassadors, further enhances brand reputation and credibility. Authentic engagement is key, potentially more impactful than incentives. **Achieving Competitive Advantage:** Integrating digital marketing (like SEO for visibility) and content management allows HEIs to clearly articulate their unique sustainability commitment, differentiating them in the education market. Engaging stakeholders effectively through tailored digital content and demonstrating genuine commitment through employee actions can attract environmentally conscious students, staff, and partners, providing a competitive edge. Effective use of social media, in particular, enhances visibility and stakeholder engagement. The Green Branding Framework serves as a guiding structure for the research and for HEIs interested in furthering their green branding initiatives, illustrating the dynamic relationships between its variables. By achieving the outlined research objectives, the framework aims to provide a strategic foundation for developing a robust Green Branding Framework that aligns with the sustainability goals of higher education institutions.

4. Conclusions and recommendations

The study shows that there is general agreement from the respondents on the digital marketing practices currently in use. The respondents showed agreement significantly on the content management strategies used by Higher Education Institution (HEI) in all the examined dimensions. Respondents demonstrated a general level of agreement among respondents regarding the organization's employee marketing engagement. The results show high significant relationships between digital marketing practices, content management strategies, and employee marketing engagement. A comprehensive Green branding Framework for HEIs has been developed to foster a pervasive culture of sustainability within the institution and simultaneously enhance its competitive advantage in the increasingly environmentally conscious market.

Administration and HEI leadership may strengthen sustainability goals, and HEI marketing into segmented lists for targeted green content. For those in charge of communications in the HEI, they may optimize digital platforms, especially social media, for broad reach and encourage employee advocacy to promote the HEI's green content. To encourage engagement, the HEI may embed sustainability culturally through access to platforms for participation, use of internal communication, and include sustainability in its mission. Likewise, the proposed Green Branding framework may be utilized by administration and HEI leadership team, strategic planning units and strategic communications units to cultivate a sustainability culture that will encourage employee engagement, green behavior, and empowerment through effective internal communication and leadership commitment. Future studies may extend the framework's applicability to corporate or non-profit sectors, examining contextual factors across regions or cultures. Integrating variables like stakeholder engagement or AI-driven tools, and analyzing external influences such as policies or societal trends, may enhance understanding of green branding. These efforts can refine the framework and advance sustainable branding strategies across diverse industries.

5. References

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