
Marketing Sustainable Practices in Higher Education: Evaluating the Efficacy of Disruptive Promotional Strategies

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Abstract

Universities increasingly promote their sustainability commitments to prospective students through attention-seeking formats such as guerrilla interventions, viral social media campaigns, experiential events, and cause-led advocacy. Whether these disruptive promotional strategies are effective, and under what conditions they backfire, has not been systematically assessed. This article evaluates their efficacy through an integrative review that synthesises published evidence from three literatures that have developed largely in isolation: higher education marketing and branding, sustainability implementation and reporting in higher education, and green and disruptive marketing research. No new empirical data were collected. The synthesis indicates that documented efficacy is concentrated at the level of attention, engagement, and word of mouth, with the strongest higher-education evidence attached to interactive social media use; direct evidence linking disruptive sustainability promotion to enrolment remains absent. Efficacy is conditional rather than inherent:

experimental green-marketing research shows that promotional claims outrunning verifiable performance depress brand attitudes and trust, and that third-party verification disciplines audience inferences. Because sustainability reporting and impact measurement in higher education remain uneven, many institutions currently lack the substantiation infrastructure that credible disruptive promotion requires. The article contributes a typology of disruptive promotional strategies with their documented outcomes, and a conceptual framework in which credibility conditions mediate the path from promotional format to student-facing outcomes while greenwashing perceptions threaten reversal. Implications for university marketers, institutional leaders, and researchers are developed, including an agenda for higher-education-specific causal evidence.

Keywords: sustainability communication, higher education marketing, guerrilla marketing, greenwashing, university branding, student recruitment, integrative review

1. Introduction

Two developments have converged on the university marketing office. First, higher education has consolidated into a competitive service market in which institutions actively manage brands, recruitment funnels, and reputational signals, even though scholarship on how universities actually market themselves has lagged behind practice (Chapleo, 2010; Hemsley-Brown & Oplatka, 2006). Second, sustainability has moved from the periphery of campus operations to the centre of institutional missions, curricula, and accountability frameworks, propelled by international policy agendas that assign education a formative role in sustainable development (Findler et al., 2019; Lozano et al., 2015; UNESCO, 2020). At the intersection of these developments sits a practical question with theoretical depth: whether disruptive promotional strategies can effectively market universities' sustainable practices to prospective students, and at what cost when they fail.

The question is timely because the target audience is demonstrably hard to reach through conventional advertising. Research on adolescent users of social networking sites shows that advertising is actively avoided when it is perceived as irrelevant, when expectations are unmet, or when users are sceptical of the message or the medium (Kelly et al., 2010). Marketers in many sectors have responded with formats designed to breach indifference: guerrilla and ambient interventions built on surprise (Hutter & Hoffmann, 2014), shareable campaign content engineered for virality (Akpinar & Berger, 2017), experiential events (Zarantonello & Schmitt, 2013), and cause-led advocacy communication. Universities have adopted elements of this repertoire, most visibly on social media platforms (Bélanger et al., 2014; Peruta & Shields, 2017). Yet sustainability is a message category with distinctive failure modes. Experimental research on green advertising shows that promotional claims can depress brand attitudes when audiences doubt the claimant's underlying performance (Nyilasy et al., 2014), and that false environmental claims raise perceived greenwashing and damage evaluations (Schmuck et al., 2018). A tactic whose defining property is to amplify attention may therefore amplify scrutiny as well.

The research gap this article addresses is specific. Three relevant literatures have matured separately, and none of them answers the efficacy question on its own. The higher education marketing literature has repeatedly been diagnosed as theoretically thin and weakly connected to the strategies institutions actually deploy (Hemsley-Brown & Oplatka, 2006), and its branding stream concentrates on identity and internal engagement rather than on promotional formats (Chapleo, 2010; Wæraas & Solbakk, 2009). The sustainability-in-higher-education literature examines implementation, reporting, and impact measurement, but treats communication mainly as disclosure rather than persuasion (Ceulemans et al., 2015; Findler et al., 2019; Fonseca et al., 2011). The green and disruptive marketing literatures contain the strongest causal evidence on promotional efficacy and its risks, but that evidence comes almost entirely from consumer-goods and retail contexts (Dinh & Mai, 2016; Hutter &

Hoffmann, 2014; Parguel et al., 2011). No published synthesis, to the author's knowledge, integrates these strands to specify which disruptive promotional strategies have documented efficacy for sustainability messages in higher education, under what credibility conditions, and with what exposure to greenwashing perceptions. The gap matters for university marketing leaders who are already spending on such campaigns without an evidence map, for institutional leaders accountable for the integrity of sustainability claims, and for researchers who need a structured agenda rather than scattered adjacent findings.

Accordingly, this article pursues three research questions. RQ1: Which disruptive promotional strategies show documented efficacy relevant to marketing sustainable practices in higher education, and at what outcome levels? RQ2: Under what credibility conditions does such promotion support, rather than undermine, prospective-student outcomes? RQ3: What risks, particularly greenwashing perceptions, do these strategies carry for universities, and how can they be mitigated? The article contributes an integrative synthesis across the three literatures, a typology of disruptive promotional strategies with their documented outcomes and evidentiary contexts, and a conceptual framework that positions credibility conditions as the mediating layer between promotional format and student-facing outcomes. The framework is a conceptual contribution derived from the synthesis; it is proposed for empirical testing, not presented as a tested model.

The article proceeds as follows. The next section reviews the three literatures thematically and builds toward the gap. The Method section sets out the integrative review protocol. The Findings section answers the research questions in four themed subsections, including the typology (Table 1) and the framework (Figure 1). The Discussion develops theoretical and practical implications, acknowledges limitations, states how far the gap has been closed, and outlines future research. A brief Conclusion follows.

2. Literature Review

2.1. Marketing and Branding in the Higher Education Context

Systematic reviewing of higher education marketing began from a sobering diagnosis: Hemsley-Brown and Oplatka (2006) found the literature incoherent, short of theoretical models fitted to the specific character of higher education services, and largely silent on the strategies institutions actually implement. Subsequent branding research substantiated the difficulty of importing corporate techniques. Chapleo (2010) reported that even United Kingdom universities regarded as successful brand builders struggled with internal brand engagement, and that empirical knowledge about branding objectives and measurement was scarce. Wæraas and Solbakk (2009) documented, in a Norwegian case, that the consistency and precision demanded by branding provoked internal resistance, and argued that universities may be too internally plural for a single brand essence. Website-based brand communication has likewise been questioned for its effectiveness (Chapleo et al., 2011). Taken together, this stream establishes two premises for the present review: universities operate under branding constraints that commercial advertisers do not face, and claims projected outward must survive contestation from internal constituencies who regard themselves as custodians of institutional identity.

On the demand side, prospective students are active information seekers rather than passive advertising audiences. Survey evidence from 1,641 Portuguese applicants placed the university website among the three most used information sources and identified geographic proximity as a significant choice factor (Simões & Soares, 2010). Analysis of 865 questions posted by prospective students on a question-and-answer platform found that information seeking clustered on reputation, career prospects, learning and teaching, administration, and student life (Le et al., 2019). Notably, sustainability did not surface as a named dimension in that inventory, which cautions against assuming that green credentials currently dominate

choice deliberations. Segmentation research on Dutch secondary students similarly concluded that, although social media penetration was very high, its influence on institutional choice was modest relative to conventional channels (Constantinides & Zinck Stagno, 2011).

2.2.Sustainability as Institutional Practice and as Communicative Resource

The sustainability-in-higher-education literature charts a sector that has embraced commitments faster than it has built verification capacity. A worldwide survey-based review documented the breadth of universities' commitment to and implementation of sustainable development (Lozano et al., 2015), while exploratory work in Portugal catalogued persistent barriers and challenges to becoming a sustainable institution (Aleixo et al., 2018). Reviewing studies published between 2005 and 2017, Findler et al. (2019) identified six areas in which universities affect sustainable development but reported a preponderance of single-case studies and a gap in holistic impact assessment. The accountability infrastructure is similarly immature. Fonseca et al. (2011) examined the reports of the 25 largest Canadian universities and found sustainability reporting to be an uncommon and heterogeneous practice, limited in scope, oriented to eco-efficiency, and of limited value for decision making; Ceulemans et al. (2015) reached a compatible conclusion in a comprehensive literature review and set a research agenda for the field. Rankings intended to make campus sustainability comparable, such as GreenMetric, have themselves been subjected to critical appraisal (Lauder et al., 2015). One strand does suggest communicative upside: stakeholders of a large Romanian university, including students and staff, expressed highly favourable perceptions of the institution's sustainability orientation (Dabija et al., 2017). The pattern relevant here is asymmetry: sustainability supplies attractive message content, while the substantiation systems that would anchor aggressive promotion of that content remain uneven.

2.3. Disruptive Promotion: Mechanisms and Documented Effects

The term disruptive promotional strategies is used in this article, as a conceptual category, for formats whose persuasive mechanism depends on violating audience expectations about where, when, or how promotional messages appear: guerrilla and ambient interventions, viral campaign content, experiential events, and cause-led advocacy executions. The mechanism evidence is clearest for surprise and creativity. Hutter and Hoffmann (2014) modelled ambient media effectiveness in retailing around the elicitation of surprise. Dinh and Mai (2016), studying Generation Y responses to 20 guerrilla advertisements, found that creativity, understood as the combination of novelty and relevance, had the strongest direct and indirect effects on word-of-mouth intention, that surprise contributed significantly, and that message credibility mediated these effects. For virality, Akpinar and Berger (2017) demonstrated with advertising data and experiments that emotional appeals are shared more, while informative appeals do more for brand evaluations, and that emotional content with integral brand placement combines both benefits. For experiential formats, Zarantonello and Schmitt (2013) traced the effect of event marketing on brand equity through brand experience and brand attitude.

Higher-education-specific evidence concentrates on social media. Rutter et al. (2016), analysing 56 UK universities, found that social media activity related positively to brand and recruitment performance and that the association was strongest when institutions used the platforms interactively rather than as broadcast channels; their results also suggested that engagement could partially offset weaker prior reputation. Content analysis of the Facebook presences of 66 leading US institutions showed that engagement varied significantly with post type and institution type, identifying content characteristics associated with higher engagement (Peruta & Shields, 2017). Bélanger et al. (2014) documented how Canadian universities deploy social media for branding. Against these positive indications stand the

avoidance findings of Kelly et al. (2010) and the modest choice influence reported by Constantinides and Zinck Stagno (2011), which jointly imply that engagement metrics should not be read as enrolment effects.

2.4.Green Marketing, Greenwashing, and the Credibility Problem

Green marketing scholarship supplies the strongest warnings. Peattie and Crane (2005) argued that much of what passed for green marketing consisted of five false variants, including green spinning and green selling, lacking genuine environmental or marketing substance. The greenwashing literature has since specified drivers, forms, and effects. Delmas and Burbano (2011) located the drivers of greenwashing at institutional, market, organisational, and individual levels; Lyon and Montgomery (2015) synthesised the field and characterised greenwash as an umbrella term covering many varieties of misleading environmental communication; de Freitas Netto et al. (2020) organised those varieties into firm-level versus product-level and claim versus executional forms. Effects research is experimentally grounded. Nyilasy et al. (2014), in an experiment with 302 participants, found that when a firm's environmental performance was low, green advertising produced worse brand attitudes than general advertising or none, and that even high performers could suffer relative to silence, a pattern the authors explained through attribution of self-serving motives. Schmuck et al. (2018), in experiments in the United States (N = 486) and Germany (N = 300), found that false claims raised perceived greenwashing and damaged attitudes, that vague claims frequently escaped detection, and that nature imagery generated positive affect capable of outweighing consumers' recognition of greenwashing. Chen and Chang (2013) showed that perceived greenwash erodes green trust directly and through consumer confusion and perceived risk, and Parguel et al. (2011) demonstrated that independent sustainability ratings discipline the inferences audiences draw from responsibility communication. Morhart et al.

(2015) provide the positive counterpart: perceived brand authenticity, comprising credibility, integrity, symbolism, and continuity, strengthens attachment and word of mouth.

Two general theories knit these strands together. Signalling theory treats promotion as information transmitted under asymmetry, with receivers assessing signal honesty and cost (Connelly et al., 2011). Legitimacy theory treats organisational claims as bids for a perception of appropriateness that audiences confer and can withdraw (Suchman, 1995). Both predict that promotional formats which increase the visibility of a claim also increase the price of its falsification. What none of the reviewed literatures provides is an integration: the higher education marketing stream evaluates channels without sustainability content, the sustainability stream evaluates substance without promotion, and the green marketing stream evaluates promotion without the higher education context. The present review was designed to close that integration gap to the extent the published evidence allows.

3. Method

3.1.Design

This study is an integrative literature review with a conceptual contribution, following the methodological guidance of Torraco (2005) and Whitemore and Knafl (2005), and the review typology of Snyder (2019). The integrative form was chosen because the question spans literatures that differ in method and maturity, and because integrative reviews are suited to synthesising diverse designs and to generating frameworks rather than pooled effect estimates (Torraco, 2005; Whitemore & Knafl, 2005). The paper evaluates the efficacy of disruptive promotional strategies by synthesising existing published evidence; no new empirical data were collected, and no surveys, interviews, or experiments were conducted by the author.

3.2.Search Strategy

Literature was identified through structured searches of Scopus, Web of Science, and Google Scholar, complemented by backward and forward citation chasing from key reviews and by bibliographic verification against the Crossref database. Example search strings, adapted to each database's syntax, included: ("higher education" OR universit*) AND (marketing OR branding OR recruitment) AND (sustainab* OR green OR environment*); (guerrilla OR ambient OR viral OR experiential) AND (marketing OR advertis*) AND (effect* OR efficacy OR response); greenwash* AND (consumer OR student OR trust OR attitude); and ("higher education" OR campus) AND (sustainability reporting OR sustainability ranking). The core search window was 2005 to 2025, a period that covers the maturation of higher education marketing scholarship after the review by Hemsley-Brown and Oplatka (2006) and of greenwashing research after Peattie and Crane (2005). Seminal earlier theory was retained where the synthesis required it (Suchman, 1995). One institutional policy document (UNESCO, 2020) was included for policy context.

3.3.Inclusion and Exclusion Criteria

Sources were included if they (a) were peer-reviewed journal articles, or named institutional policy documents used solely for context; (b) were published in English; (c) addressed at least one of the three review domains: higher education marketing, branding, or student choice; sustainability implementation, reporting, or perception in higher education; or the mechanisms, efficacy, or risks of disruptive or environmental promotional formats; and (d) reported empirical findings, systematic syntheses, or explicit theory development. Sources were excluded if they were practitioner commentary without method; if they concerned sustainability teaching outcomes with no communicative or marketing relevance; if their bibliographic metadata could not be verified against the publisher record; or if they duplicated findings already captured by a stronger design in the same stream. Screening proceeded in

two stages, first on titles and abstracts against the domain criteria, then on full records against the evidentiary criteria. Thirty-seven sources satisfied all criteria and form the evidence base.

3.4.Appraisal and Synthesis

Because the included designs range from experiments to content analyses and conceptual reviews, efficacy evidence was appraised with a design-sensitive logic rather than a single quality score. Causal claims were accepted only from experimental studies (e.g., Nyilasy et al., 2014; Parguel et al., 2011; Schmuck et al., 2018); associational claims from modelled survey or archival studies were reported as associations (e.g., Rutter et al., 2016); descriptive claims from content analyses were confined to description (e.g., Le et al., 2019; Peruta & Shields, 2017). Each finding was additionally tagged for contextual origin, distinguishing higher education samples from consumer-goods and retail samples, so that transferability could be argued rather than assumed. Synthesis followed the iterative juxtaposition procedure recommended for integrative reviews (Torraco, 2005): strategy types, outcome levels, enabling conditions, and risk mechanisms were coded from the included studies, compared across streams, and assembled into the typology reported in Table 1 and the framework in Figure 1. The framework is derived from, and traceable to, the coded evidence, but it remains a conceptual synthesis awaiting empirical test.

3.5.Rigor and Trustworthiness

Several safeguards address the known weaknesses of integrative reviewing. All bibliographic records, including authors, year, outlet, pagination, and DOI, were verified against Crossref or publisher records before inclusion, and every substantive claim attributed to a source was checked against that source's published abstract or record. Attribution strength was calibrated to design, as described above, and single studies are not presented as consensus. The review does not claim the exhaustiveness of a systematic review, does not report screening flow counts, and applies no meta-analytic pooling, because the heterogeneity

of designs and outcomes would make pooled estimates misleading. Scope boundaries are explicit: the review concerns promotion to prospective students in higher education; it does not evaluate sustainability curricula, campus operations, or staff-facing communication except as substantiation for external claims. Residual risks of selection and interpretation bias inherent in single-author integrative reviews are acknowledged in the Limitations subsection.

4. Findings

4.1.A Typology of Disruptive Promotional Strategies and Their Documented Efficacy

The synthesis identifies four strategy families relevant to marketing sustainable practices in higher education, summarised with their documented outcomes in Table 1. The first family, guerrilla and ambient interventions, stakes persuasion on surprise encountered in unexpected physical settings. Its efficacy evidence is consistent at the level of psychological response and word of mouth: surprise is the operative emotional mechanism in ambient promotion (Hutter & Hoffmann, 2014), and creativity combining novelty with relevance exerts the strongest influence on word-of-mouth intention, with message credibility mediating the effect (Dinh & Mai, 2016). No included study tested guerrilla formats with university sponsors or sustainability content; the efficacy attributed to this family in higher education is therefore an argued transfer, not a documented result.

The second family, viral and social media campaigning, carries the strongest higher-education evidence. Emotional appeals travel further than informative ones, while informative appeals do more for brand evaluations, and the two can be combined through integral brand placement (Akpınar & Berger, 2017). Within the sector, social media activity across 56 UK universities was positively associated with brand and recruitment performance, with the strongest association when platforms were used interactively (Rutter et al., 2016), and engagement with institutional Facebook content varied systematically with post and institution type across 66 leading US institutions (Peruta & Shields, 2017). Two qualifications

restrain enthusiasm. Adolescent audiences actively avoid social network advertising they find irrelevant or untrustworthy (Kelly et al., 2010), and survey evidence indicates that social media influence on actual institutional choice is modest relative to conventional channels (Constantinides & Zinck Stagno, 2011). The documented efficacy of this family is therefore real but concentrated upstream of enrolment.

The third family, experiential and event-based formats, is supported by evidence that event marketing builds brand equity through brand experience and brand attitude (Zarantonello & Schmitt, 2013). Campus open days and sustainability-themed events are natural higher-education vehicles, and experiential formats have the advantage of displaying practices rather than asserting them; direct sector-specific efficacy studies are nonetheless absent from the included evidence. The fourth family, cause-led advocacy communication, places the institution's sustainability commitments at the centre of the message. Here the green advertising evidence applies most directly and is conditional in sign: green appeals improved nothing when claimed performance was doubted, and depressed brand attitudes when performance was low (Nyilasy et al., 2014), while false claims raised perceived greenwashing and damaged evaluations (Schmuck et al., 2018). In answer to RQ1: documented efficacy exists chiefly for engagement-level and attitudinal outcomes, is strongest and most sector-specific for interactive social media use, and is nowhere yet documented for enrolment as an outcome of disruptive sustainability promotion.

Table 1

Typology of Disruptive Promotional Strategies for Sustainability Messages in Higher Education: Mechanisms, Documented Outcomes, and Risks

Strategy family	Core mechanism	Documented outcomes (context)	Principal risk	Key sources
Guerrilla and ambient interventions	Surprise from schema violation; creativity as novelty plus relevance	Word-of-mouth intention, mediated by message credibility (consumer samples)	Credibility loss when message is unclear or stunt overshadows claim	Hutter & Hoffmann (2014); Dinh & Mai (2016)
Viral and social media campaigns	Emotional arousal drives sharing; interactivity builds relationships	Sharing and brand evaluations (advertising data); association with university brand and recruitment performance; engagement varying by content type (HE samples)	Advertising avoidance under irrelevance or scepticism; weak link to final choice	Akpinar & Berger (2017); Rutter et al. (2016); Peruta & Shields (2017); Kelly et al. (2010); Constantinides & Zinck Stagno (2011)
Experiential and event-based formats	Direct brand experience shaping attitude	Brand equity via brand experience and brand attitude (consumer samples)	Inflated expectations exceeding campus reality	Zarantonello & Schmitt (2013); Morhart et al. (2015)
Cause-led advocacy communication	Value alignment; moral positioning of institution	Conditional: attitudes improve only when claims match performance; false claims damage attitudes; third-party ratings discipline inferences (experimental consumer samples)	Greenwashing perception, trust erosion, motive attribution	Nyilasy et al. (2014); Schmuck et al. (2018); Parguel et al. (2011); Chen & Chang (2013)

Note. Strategy families and cell contents are derived from the studies cited in the final column; outcome descriptions preserve the original study contexts, and no cell reports evidence beyond what those sources document. HE = higher education. Consumer-context findings are transferable to higher education only as argued in the text.

4.2.Credibility Conditions: When Disruption Helps

RQ2 asks under what conditions disruptive promotion of sustainable practices supports prospective-student outcomes. The synthesis supports a signalling reading (Connelly et al., 2011): prospective students operate under information asymmetry and actively seek reputational and experiential information (Le et al., 2019; Simões & Soares, 2010), so promotional formats function as signals whose value depends on perceived honesty rather than on volume. Four credibility conditions recur across the evidence. First, claim-

performance alignment: the experimental green-marketing results are unambiguous that promotion detached from verifiable performance is worse than restraint (Nyilasy et al., 2014), and that outright false claims are reliably punished when detected (Schmuck et al., 2018). Second, substantiation and external verification: independent sustainability ratings changed the motives audiences attributed to responsibility communication (Parguel et al., 2011), which in the university context assigns instrumental value to credible reporting and audited indicators over self-declared virtue. Third, authentic voice: perceived brand authenticity, resting on credibility, integrity, symbolism, and continuity, strengthens attachment and word of mouth (Morhart et al., 2015); in universities, authenticity has an internal precondition, since branding that faculty and students do not recognise as true provokes resistance rather than advocacy (Chapleo, 2010; Wæraas & Solbakk, 2009). Fourth, message-channel fit: interactivity, not mere presence, carried the association with recruitment performance in the sector evidence (Rutter et al., 2016), and content characteristics measurably conditioned engagement (Peruta & Shields, 2017). Where these four conditions hold, the attention premium of disruptive formats can plausibly be converted into attitudinal and word-of-mouth gains; where they fail, the same premium accelerates the damage.

4.3.The Substantiation Deficit in Higher Education

The credibility conditions expose a sector-specific vulnerability. The sustainability-in-higher-education literature shows commitments outpacing verification: implementation is uneven across institutions (Aleixo et al., 2018; Lozano et al., 2015), impact measurement is fragmented and rarely holistic (Findler et al., 2019), and reporting, where it exists, has been found uncommon, heterogeneous, narrow in scope, and of limited decision value (Fonseca et al., 2011), a diagnosis echoed at review level (Ceulemans et al., 2015). Sustainability rankings could in principle supply the third-party discipline that Parguel et al. (2011) found effective, but the most visible global campus ranking has itself drawn methodological criticism (Lauder

et al., 2015), which weakens its verifying force. This is an interpretive judgement rather than a reported finding, but it follows directly from the juxtaposition: many universities currently promote from a substantiation base that could not withstand the scrutiny that disruptive visibility invites. The favourable stakeholder perceptions documented where sustainability orientation is well established (Dabija et al., 2017) indicate the upside available to institutions that close this deficit first. In legitimacy terms (Suchman, 1995), disruptive sustainability promotion is a high-variance legitimacy bid: it can accelerate legitimacy gains for institutions with substance, and accelerate legitimacy loss for institutions without it.

4.4.Risks, Reversal, and the Conceptual Framework

RQ3 concerns risks. The greenwashing literature maps them precisely onto the university case. The drivers identified at institutional, market, organisational, and individual levels (Delmas & Burbano, 2011) all have higher-education analogues: ranking and league-table pressure, intensified recruitment competition, decentralised communication offices, and optimistic campaign cultures. The forms catalogued by de Freitas Netto et al. (2020) transfer as well; a university may greenwash at claim level, by overstating carbon or curricular commitments, or at executional level, through imagery that implies environmental virtue without asserting it. The executional route deserves emphasis because Schmuck et al. (2018) found that nature imagery generated positive affect that could outweigh audiences' recognition of greenwashing; a visually spectacular ambient stunt could thus succeed affectively while failing ethically, exposing the institution to delayed reputational cost when the gap surfaces. Perceived greenwash, once triggered, erodes trust both directly and through confusion and perceived risk (Chen & Chang, 2013), and the broader trajectory of greenwashing scholarship documents rising public vigilance (Lyon & Montgomery, 2015). The five false green marketings described by Peattie and Crane (2005) read, two decades later, as a checklist of failure modes for university campaigns assembled around content rather than practice.

Figure 1 integrates the synthesis into a conceptual framework. Strategy families, at the left, do not act on outcomes directly; their effects pass through the credibility conditions identified above. When conditions are met, pathways lead to attention and engagement, brand attitude and trust, enrolment-related preference, and legitimacy. When conditions fail, the framework routes effects through greenwashing perception risk, which attenuates or reverses outcome gains, consistent with the experimental evidence of backfire (Nyilasy et al., 2014; Schmuck et al., 2018). A feedback path returns reputational outcomes to subsequent campaign choices, reflecting the iterative character of institutional legitimacy (Suchman, 1995). The framework's propositions are testable: each arrow specifies a relationship that higher-education-specific research can operationalise.

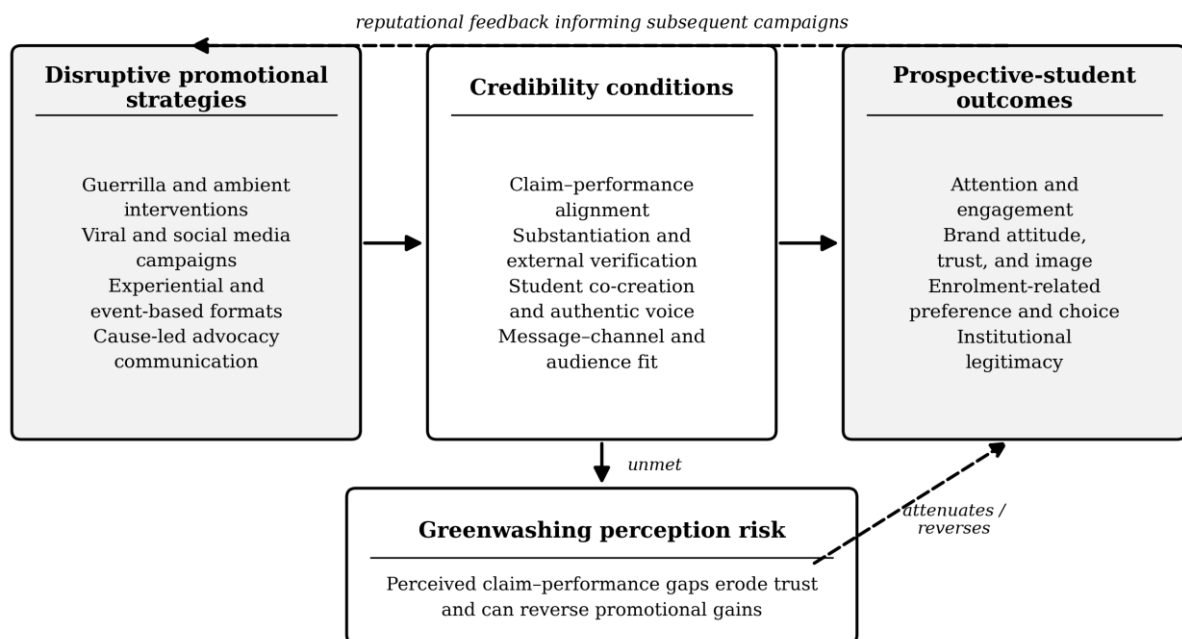


Figure 1. Conceptual framework of credibility-conditioned efficacy of disruptive promotional strategies for sustainability messages in higher education. Solid arrows denote proposed enabling pathways; dashed arrows denote risk and feedback pathways. Source: author's synthesis of the reviewed literature.

5. Discussion

5.1.Theoretical Implications

The synthesis carries three theoretical implications. First, it relocates the efficacy question. The literatures reviewed do not support asking whether disruptive promotional strategies work in general; the defensible question is at which outcome level, under which credibility conditions, and at what risk. Treating efficacy as conditional aligns higher education marketing with the attribution-theoretic turn in green advertising research (Nyilasy et al., 2014; Parguel et al., 2011) and answers, for one domain, the call to theorise mechanisms of misleading environmental communication (Lyon & Montgomery, 2015). Second, the review extends greenwashing theory into a public-sector service context in which the claimant is simultaneously an educator of the audiences that will judge it, a reflexivity absent from consumer-goods settings and likely to intensify scrutiny; this extension is conceptual and awaits empirical confirmation. Third, by joining signalling (Connelly et al., 2011), legitimacy (Suchman, 1995), and authenticity (Morhart et al., 2015) perspectives around a single promotional problem, the framework specifies how internal brand contestation, documented as a distinctive university condition (Wæraas & Solbakk, 2009), becomes an externally visible credibility variable rather than a private management difficulty.

5.2.Practical Implications

For university marketing leaders, the evidence ordering is substance first, verification second, spectacle third. Institutions should audit the substantiation base, including reporting quality and externally checkable indicators, before commissioning high-visibility sustainability campaigns, because the experimental record shows promotion without performance to be value-destroying rather than merely ineffective (Nyilasy et al., 2014). Claims should be specific and checkable in preference to vague, since vague claims that initially escape detection (Schmuck et al., 2018) leave the institution holding latent risk.

Third-party anchors, such as audited reports or credible rankings, should accompany campaign claims where available (Parguel et al., 2011), with awareness of the methodological contestation surrounding some rankings (Lauder et al., 2015). Within the disruptive repertoire, the strongest sector evidence favours interactive social media engagement over broadcast spectacle (Rutter et al., 2016), and content planning should reflect measured engagement differences by content type (Peruta & Shields, 2017). Campaigns fronted by verifiable student experience, for example experiential events that display actual campus practices, fit both the experiential evidence (Zarantonello & Schmitt, 2013) and the authenticity requirement (Morhart et al., 2015). Finally, expectations should be calibrated: no included study links disruptive sustainability promotion to enrolment, and information-seeking evidence suggests sustainability is not yet a dominant choice dimension (Le et al., 2019), so such campaigns are better justified as brand and legitimacy investments than as direct recruitment instruments.

5.3.Limitations

The limitations follow from the method. An integrative review is selective by design; despite structured searches, relevant studies may have been missed, and the restriction to English-language, peer-reviewed sources introduces language and publication bias. The evidence base for two of the four strategy families rests on consumer and retail samples, so the transfers argued here, however disciplined, remain inferences rather than findings. Heterogeneity of designs precluded meta-analytic pooling, and no screening flow counts are reported, so the review should not be read as exhaustive in the systematic-review sense. Coding and framework derivation were performed by a single author, which admits interpretation bias that the traceability of every claim to logged, verified sources mitigates but cannot eliminate. Finally, the framework is a conceptual synthesis; none of its pathways has been tested as an integrated model.

5.4.How Far the Gap Was Closed, and Future Research

The integration gap identified in the Introduction has been closed at the level of synthesis: the review now connects the three literatures, specifies where documented efficacy exists and where it is absent, and converts scattered warnings into a structured risk mechanism. The gap remains open at the level of causal evidence, because higher-education-specific tests of disruptive sustainability promotion do not yet exist in the included record. Future research should proceed on four fronts: experimental studies manipulating claim specificity, substantiation, and format within realistic university recruitment stimuli; longitudinal designs linking campaign exposure to application and enrolment behaviour rather than engagement proxies; measurement work adapting greenwashing-perception and brand-authenticity scales (Chen & Chang, 2013; Morhart et al., 2015) to institutional claims; and comparative studies across national systems, since choice factors and media behaviour differ across the contexts represented in the evidence base (Constantinides & Zinck Stagno, 2011; Simões & Soares, 2010).

6. Conclusion

This article evaluated the efficacy of disruptive promotional strategies for marketing sustainable practices in higher education by integrating evidence from higher education marketing, sustainability in higher education, and green and disruptive marketing research. The evidence supports a restrained verdict. Disruptive formats have documented power to generate attention, engagement, and word of mouth, and interactive social media use shows sector-specific associations with brand and recruitment performance; nothing in the record yet ties these formats to enrolment outcomes for sustainability messages. Their efficacy is conditional on credibility: alignment between claim and performance, external substantiation, authentic institutional voice, and fit between message and channel. Because the sector's verification infrastructure remains uneven, the same properties that make these strategies

attractive make them hazardous for institutions whose practice lags their positioning. The typology and conceptual framework contributed here organise what is known, mark the boundary of what is documented, and specify the tests that would move the field from argued transferability to sector-specific evidence.

Declarations

Funding: This research received no external funding.

Conflicts of Interest: The author declares no conflict of interest.

Ethics: This study is a review of published literature and did not involve human participants, animals, or personal data; ethical approval was therefore not required.

Data Availability: No new data were created or analysed in this study. All sources synthesised are publicly available through the cited references.

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Hashtags:

#SDG12 #ResponsibleConsumption #SDG4 #QualityEducation
#SustainabilityCommunication #HigherEducationMarketing #GuerrillaMarketing
#Greenwashing #UniversityBranding #StudentRecruitment #IntegrativeReview
#DisruptivePromotion #U7YJournal #U7Y #AcademicResearch