Abstract

Purpose – Employing neo-institutional theory (three institutional mechanisms and Oliver's strategic responses framework), this study aims to critically examine the strategic responses of English public universities to institutional pressures for carbon management (CM), a key component of sustainability initiatives.

Design/methodology/approach – Diverse universities were selected to reflect institutional variation. Data were collected through twenty semi-structured interviews with key sustainability-related managers responsible for CM. Approximately 800 documents were also analyzed.

Findings – This paper unveils how universities navigate complex and changing stakeholder demands through a combination of acquiescence, compromise, avoidance, defiance, and manipulation strategies. The findings highlight the predominance of superficial adaptation over substantive transformation, driven by the weakening of institutional pressures, universities' strategic resistance, and power asymmetries.

Practical implications – The evidence suggests universities should create internal incentive systems, be cautious of highly visible but superficial initiatives, and democratize sustainability governance.

Social implications – The findings underline the importance of re-establishing strong, consistent, and long-term government coercive pressures. The normative and mimetic pressures also need to be strengthened and better aligned with absolute carbon reduction targets.

Originality/value – This paper is among the first to apply Oliver's strategic responses framework to analyze universities' CM engagement, providing new insights into the embedded strategic agency of universities. It challenges traditional interpretations of mimetic behaviour as a passive acquiescence response and reconceptualizes imitation as an active strategic tool. It also addresses the under-explored role of power dynamics in shaping institutional processes.

Introduction

Carbon management (hereafter CM) involves controlling, reducing and monitoring carbon emissions to address the challenges posed by climate change (Yunus *et al.*, 2020). The university sector is increasingly recognized as a critical player in global sustainability efforts, given its role as both a significant contributor to carbon emissions and a site of innovation and societal leadership. However, despite the sector's considerable potential to catalyse transformative change, sustainability initiatives, including CM, often remain peripheral to

universities' core educational and research missions (Leal Filho *et al.*, 2019). This raises crucial questions about the extent to which universities are leveraging their institutional capacity to lead by example in addressing climate change and environmental degradation.

English public universities operate within a complex institutional environment shaped by multiple and, at times, competing pressures from governmental bodies, students, faculty, local communities, and other stakeholders. These institutions are bound by regulatory frameworks, influenced by activist organizations, and responsive to societal expectations for environmental responsibility. However, their engagement with CM is often constrained by competing priorities. On one hand, universities face increasing demands to enhance operational efficiency and align with national and global climate goals. On the other, the growing marketisation of higher education and the need to compete for funding, students, and prestige often prioritize short-term financial objectives over long-term CM commitments. This tension creates a challenging context for navigating CM imperatives, with significant implications for institutional behaviour and strategy.

While many universities have implemented CM initiatives, these efforts frequently emphasize symbolic compliance, such as adopting high-profile but low-impact projects, rather than enacting substantive change that aligns with ambitious carbon reduction targets. This phenomenon reflects broader organizational challenges in responding to sustainability pressures, including the navigation of conflicting institutional demands and the balancing of competing goals. It also underscores the critical need for research that examines how universities strategize their responses to CM pressures, particularly considering their public missions and societal roles.

The subsequent two research questions are formulated to guide this study: (1) What are a variety of institutional actors, and how do they influence English public universities' CM engagement? (2) In the process of CM engagement, how do English public universities respond to these institutional influences? Specifically, it explores the strategies universities employ to navigate these pressures and the broader implications for sustainability transitions in higher education. Drawing on neo-institutional theory: three institutional mechanisms, which examine the interplay between organizational behaviour and institutional contexts (DiMaggio and Powell, 1983; Scott, 2014), and Oliver's (1991) strategic responses framework, which categorizes organizational responses to institutional pressures, this study seeks to provide new insights into the embedded strategic agency of universities. These frameworks enable an exploration of both the structural constraints imposed by institutional environments and the active role of organizations in shaping their responses to these constraints.

This study advances theoretical understanding in three key areas. First, Oliver's (1991) strategic response framework has garnered attention and provided valuable insights into the management and accounting literature. However, there is a lack of knowledge regarding the extent to which organizations implement these strategies in the field of sustainability, and such empirical studies are almost non-existent in relation to universities' CM (Andrades *et al.*, 2025). Consistent with Oliver's theory, the findings of this research challenge traditional conceptions of organizational adaptation as passive, revealing that universities do not merely comply with sustainability pressures but actively resist, negotiate, reshape, and selectively engage with them. This paper is among the first applying Oliver's strategic responses framework to analyse universities' CM engagement.

Second, it specifically challenges conventional interpretations of mimetic behaviour as a passive acquiescence response (Oliver, 1991) by demonstrating its strategic potential. Universities often engage in selective imitation of peer institutions, not merely to conform to external expectations but to learn from best practices and enhance their competitive positioning (Haunschild and Miner, 1997). This reconceptualization of mimetic behaviour as an active and strategic tool extends neo-institutional theory by highlighting the embedded agency of organizations in navigating complex institutional landscapes (Abernethy and Chua, 1996; Modell, 2001). Furthermore, this challenges the conventional view of institutional isomorphism by positioning mimicry as an instrument of competitive differentiation rather than mere uncertainty reduction.

Third, this study addresses the under-explored role of power dynamics in shaping organizational responses to institutional pressures (Eitrem *et al.*, 2024). Power asymmetries between stakeholders, such as government regulators, students, activist groups, and institutional leaders, can significantly influence both the nature of institutional pressures and the strategies organizations adopt in response (Greenwood *et al.*, 2011; Munir, 2015, 2020). This research integrates the theory of institutional complexity, demonstrating how universities navigate conflicting institutional logics and selectively prioritize CM commitments that align with their strategic goals. By examining these dynamics, this study contributes to ongoing debates about the role of power in institutional theory and sustainability management, reinforcing the argument that sustainability transitions are shaped not only by compliance with regulatory mandates but also by the strategic negotiation of institutional pressures.

Literature review

Three institutional mechanisms (coercive, normative, and mimetic pressures) provide a foundational framework for understanding how organizations operate within environments shaped by rules, norms, and cultural expectations (DiMaggio and Powell, 1983; Scott, 2014). Coercive pressures stem from external entities with regulatory or resource authority, such as governments, funding bodies, or accreditation agencies. Normative pressures arise from professionalization processes and shared social expectations. Mimetic pressures reflect the tendency of organizations to emulate peers perceived as successful or legitimate, particularly in conditions of uncertainty.

While neo-institutional theory previously focused on organizational conformity, recent advancements highlight the embedded active agency of organizations in interpreting and navigating institutional demands (Greenwood *et al.,* 2011; Lounsbury and Crumley, 2007). This perspective is especially relevant in CM research, where organizations must balance competing imperatives, such as regulatory compliance, operational efficiency, and stakeholder expectations. These challenges underscore the need for a nuanced understanding of organizational behaviour that accounts for both external pressures and internal agency.

Strategic responses to institutional pressures

Oliver's (1991) strategic responses framework builds on both institutional and resource dependence theory by illustrating the spectrum of organizational strategies for addressing institutional pressures. Her framework identifies five strategic responses—acquiescence, compromise, avoidance, defiance, and manipulation—ranging from passive compliance to proactive resistance. Each response reflects varying levels of organizational agency and intent, offering insights into how organizations navigate complex institutional landscapes.

Acquiescence, the most passive response, involves complete compliance with institutional demands. This strategy can manifest as imitation of industry standards, adherence to sustainability frameworks, or habitual conformity to norms. For universities, acquiescence might include aligning with national carbon reporting frameworks or adopting renewable energy technologies to comply with government mandates. While acquiescence ensures legitimacy, it may limit organizational innovation, as practices are often adopted without critical evaluation of their effectiveness.

Compromise strategies involve balancing conflicting demands from multiple institutional actors. Universities frequently employ these strategies to address tensions between sustainability goals and operational constraints. For instance, institutions might adopt energy efficiency measures that reduce emissions while lowering costs, thereby satisfying both

environmental and financial imperatives. Bargaining with stakeholders, such as negotiating carbon reduction targets with funding bodies, exemplifies the compromise approach. These strategies allow organizations to maintain flexibility while projecting an image of responsiveness.

Avoidance strategies reflect efforts to sidestep institutional pressures. Symbolic compliance, publicly committing to sustainability goals without implementing substantive changes, is a common avoidance tactic in higher education. For example, universities may participate in high-profile sustainability initiatives or publish carbon reduction pledges without integrating these commitments into their core operations (Boiral, 2007). While such strategies enhance reputational capital, they often fail to achieve meaningful environmental impact, raising questions about organizational accountability.

Defiance encompasses overt resistance to institutional demands, including dismissal, challenge, or attack tactics. Although less common in higher education, defiance can arise when universities perceive sustainability requirements as misaligned with their academic missions or financial priorities. For instance, research-intensive universities may oppose policies perceived as penalizing energy-intensive disciplines, such as engineering or life sciences. Defiance highlights the active agency of organizations in rejecting external pressures deemed incompatible with their strategic goals.

Manipulation, the most proactive response, involves efforts to reshape institutional environments to align with organizational objectives. Universities employing manipulation might lobby for favourable regulatory frameworks, co-opt sustainability initiatives to enhance their influence, or redefine performance metrics to reflect their strengths. For example, participation in international consortia that set sustainability standards allows universities to exert influence over the criteria used to evaluate their environmental performance. Manipulation underscores the active role organizations play in shaping the institutional fields in which they operate.

The diversity of organizational strategies captured by Oliver's framework underscores the complexity of institutional processes in CM contexts. However, critiques of the framework, particularly its categorization of mimetic behaviour as a passive response, highlight the need for theoretical refinement. Increasingly, scholars argue that imitation can serve as a strategic tool for organizations to learn from peers and adapt best practices to local contexts (Abernethy and Chua, 1996; Lounsbury, 2008). This perspective has significant implications for understanding organizational responses to CM in higher education, where institutions face diverse and evolving pressures.

Power dynamics in institutional processes

Institutional theory has traditionally addressed power indirectly through coercive pressures, yet recent research emphasizes the need to explicitly analyse power dynamics in shaping institutional processes. Power is a fundamental determinant of organizational behaviour, influencing the strength of institutional pressures, the capacity for organizational resistance, and the prioritization of stakeholder interests (Clegg *et al.*, 2019; Munir, 2015, 2020).

Eitrem *et al.* (2024) contend that explicit considerations of power have been largely absent in sustainability studies employing institutional theoretical perspectives, particularly regarding how the use of power contributes to marginalization. Even for limited studies considering the conception of power, they perceived it as a phenomenon ingrained in various forms of isomorphism. This view tends to present a rather static perspective of power dynamics and offers little insight into how these dynamics could change in the quest for greater sustainability.

Carbon management in higher education institutions

The carbon emissions of an entity can be categorized into three 'scopes'. Scope 1: Direct emissions originating from sources within the organization's ownership or control. Scope 2: Indirect emissions in relation to the production of energy that has been bought. Scope 3: Indirect emissions that result from an organization's operations but originate from sources that the organization does not own or control, including waste, water, travel and commuting, procurement, and investments emissions (The Carbon Trust, 2019).

The higher education sector represents a critical context for exploring CM. Universities are uniquely positioned to drive environmental innovation through their research, education, and community engagement activities. However, this potential is often constrained by operational and institutional challenges that limit the effectiveness of CM initiatives. Universities have adopted diverse strategies, including infrastructure upgrades, behavioural change campaigns, and renewable energy investments. For example, many institutions have retrofitted campus buildings with energy-efficient technologies, implemented waste reduction programs, and promoted sustainable transportation options. These initiatives not only reduce emissions but also enhance universities' reputational capital, attracting students, faculty, and funding aligned with sustainability values.

Despite these efforts, existing research highlights significant gaps between rhetoric and practice. Hernández-Diaz *et al.* (2021) document the prevalence of symbolic compliance in higher education, where sustainability initiatives prioritize visibility over substantive change.

Similarly, Robinson *et al.* (2018) identify the lack of standardized frameworks for monitoring and enforcing carbon reduction targets, limiting the scalability of CM practices. These findings underscore the need for more robust institutional arrangements to align organizational behaviour with CM goals.

Methodology

This study adopts a qualitative research design to examine how English public universities navigate the institutional pressures shaping CM. Given the complexity of organizational responses to sustainability imperatives, a qualitative approach enables a context-sensitive exploration of institutional decision-making, capturing the interplay between structure and agency in shaping CM strategies (Yin, 2017). English universities provide a particularly rich empirical setting, as they operate within an evolving regulatory landscape, balancing environmental commitments with financial and operational constraints.

The study sample comprised a diverse set of English public universities selected to reflect institutional variation in mission, size, regional location, and historical establishment (Appendix 1). This included pre-1992 research-intensive institutions and post-1992 teaching-focused universities, situated across northern, midland, and southern England. While the identities of participating institutions remain anonymised, this purposive diversity enhanced the richness of the data and enabled an exploration of CM engagement across varied institutional contexts. By ensuring variation in institutional profile, the study was able to capture a broader range of experiences, practices, and responses relevant to CM pressures and strategies.

Prior to the data collection, the appropriate ethical approval was obtained and informed consent, confidentiality, and anonymity were ensured. Data were collected through twenty semi-structured interviews with key sustainability-related managers responsible for CM strategy and implementation (Appendix 2). Interviewees provided insights into institutional priorities, stakeholder pressures, and strategic responses. Interviews ranged from forty to seventy-five minutes, following a semi-structured format that allowed for comparability while enabling emergent themes to surface. In addition to interviews, about eight hundred institutional documents were analysed, including universities' sustainability strategies, CM action plans, annual statements, internal governance records, government policies, media reports, sustainability ranking disclosures, and activist groups' documents (Appendix 3). This documentary analysis provided a complementary perspective on both explicit CM commitments and the extent of policy implementation.

To strengthen empirical rigor, the study employs triangulation by integrating multiple data sources to validate and deepen interpretation. Data comprised twenty semi-structured interviews with senior managers and sustainability officers and an extensive corpus of institutional and external documents (strategies, policy papers, and sectoral reports), totalling several hundred records. Triangulation was used both to enhance validity and to reconcile inconsistencies across these materials. Where discrepancies emerged between interviewee narratives and documentary evidence, these were logged systematically and further examined to understand their underlying causes. For example, while some universities publicly committed to ambitious carbon reduction targets, internal papers and media reports often revealed financial constraints or internal resistance that limited implementation. In such cases, additional documents were reviewed and, where possible, clarificatory follow-up was undertaken with participants to ensure fair representation. This iterative process ensured that reported CM commitments were critically examined against demonstrable institutional practice.

With the support of NVivo software, analysis was conducted using template analysis (King, 2012), enabling a structured yet flexible coding approach. followed DiMaggio and Powell's (1983) and Scott's (2014) typology of coercive, normative, and mimetic pressures, while Oliver's (1991) framework guided categorisation of strategic responses—acquiescence, compromise, avoidance, defiance, and manipulation. As the analysis progressed, emergent themes such as reputational benchmarking, power asymmetries, and the performativity of CM commitments were integrated into the analytical framework. A cross-case comparative approach was employed to explore variations in CM strategies, highlighting how institutional size, resource availability, and external stakeholder dynamics shaped organizational responses.

To enhance validity and reliability, triangulation was complemented by member checking and inter-coder review. Preliminary findings were returned to a subset of participants to confirm interpretative accuracy and ensure the analysis reflected institutional realities. Inter-coder reliability checks were performed across interview and documentary datasets to maintain consistency in coding. Together, these measures ensure that the triangulation process not only enhanced empirical credibility but also reconciled potential inconsistencies between data sources in a transparent and systematic manner.

Table 1. University sample

University	Established	Students	Annual income £m	Membership	Type of campus	Location
Uni 1	1940s	30,000-35000	500-800	Russell Group	Urban and suburban	midlands
Uni 2	1992	25,000-30,000	200-300		Urban and suburban	north
Uni 3	1992	20000-25,000	200-300	University Alliance	Urban and suburban	south
Uni 4	1992	15,000-20,000	200-250	University Alliance	Urban and suburban	south
Uni 5	1992	25,000-30,000	200-300		Urban and suburban	midlands
Uni 6	post 2000	10,000	100-150	Million+	urban	south
Uni 7	1992	15,000-20,000	150-200		suburban	south
Uni 8	1960s	10,000-15,000	150-200		urban	midlands
Uni 9	1992	20,000-25,000	150-200		urban	west
Uni 10	post 2000	5,000-10,000	50-100		rural	southwest
Uni 11	19th century	10000-15000	300-400	Russell group	urban	greater London
Uni 12	18 th century	20000-25000	400-500	Russell Group	urban	greater London
Uni 13	19th century	15000-20000	350-450	Russell Group	urban	southeast
Uni 14	11th century	20000-25000	2000-2500	Russell Group	urban	south
Uni 15	1960s	25000-30000	600-700	Russell Group	Urban and suburban	midlands
Uni 16	19th century	35000-40000	650-750	Russell Group	Urban and suburban	midlands
Uni 17	19th century	40000-450000	1000	Russell Group	Urban and suburban	midlands
Uni 18	post 2000	15000-20000	250-350		urban	West
Uni 19	post 2000	10000-15000	100-150		urban	southeast
Uni 20	1992	20000-25000	150-250		urban	midlands

Source: authors own work

Table 2. Details of the interviewees

Interviewee	University	Position	Work experience	Gender
1	1	Director of sustainability	over 20 years	male
2	2	Sustainability adviser (strategic)	over 10 years	female
3	3	Senior environmental officer	over 10 years	female
4	4	Head of sustainability	over 20 years	male
5	5	Senior Environmental & Sustainability Officer	over 10 years	male
6	6	Environmental and Sustainability Manager	over 10 years	male
7	7	Sustainability Manager	over 10 years	male
8	8	Energy, Environment and Sustainability Manager	over 10 years	male
9	9	Environmental Manager	over 10 years	female

10	10	Sustainability Manager	over 10 years	male
11	11	Head of Environmental Sustainability	over 15 years	male
12	12	Head of sustainability	over 20 years	male
13	13	Senior Energy & Sustainability Manager	over 15 years	male
14	14	Head of Environmental Sustainability	over 20 years	female
15	15	Head of Energy and Sustainability	over 15 years	male
16	16	Sustainability Manager	over 10 years	female
17	17	Head of Environmental Sustainability	over 20 years	female
18	18	Associate Director, Sustainable Operation	over 15 years	male
19	19	Director of Sustainability Development	over 25 years	male
20	20	Sustainability Manager	over 10 years	male

Source: authors own work

Table 3. Documents collected and analyzed

Document type	No. of documents
Documents within universities (total)	730
University mission/vision/value statements	100
Annual reviews/reports/accounts	100
University sustainability policies/strategies	70
Sustainability governance structure/management information	80
Sustainability-related reports	60
Carbon and energy reduction plans/programs	45
Waste and recycling management programs/policies	30
Water reduction programs/policies	30
Travel and transport programs/policies	30
Building/construction management documents relating to OS	35
Sustainable procurement policies/programs	25
Ethical investment and banking policies	25
Environmental management system and audit information	35
Sustainability engagement programs	25
Local students' unions' programs and websites	40
External documents (total)	60
Laws, government policies, guidance, programs and reports	11
Media news, reports and rankings	12

People & Planet University sustainability league tables	6
Activist groups' programs and websites	8
Consulting reports	3
Professional associations' documents, programs and websites	10
National student unions' reports, programs and websites	10
Total No. of documents	790
Source: authors own work	

Findings

Research question 1: What are a variety of institutional actors, and how do they influence English public universities' CM engagement?

The findings illustrate the pervasive influence of institutional actors—government bodies, student-led activist groups, media, and peer universities—on the CM practices of English public universities. These actors exert varying degrees of coercive, normative, and mimetic pressures, shaping organizational behaviour in nuanced ways.

Weakening and short-term oriented coercive institutional influences

The evidence suggests that coercive pressures, primarily emanating from governmental authorities, have historically played a significant role in driving CM initiatives within universities. Interviewees frequently identified government regulations and funding conditions as critical motivators for institutional action on CM. For instance, one participant highlighted the impact of the government Carbon Reduction Commitment Energy Efficiency Scheme (CRCEES):

> CRCEES was a way to effectively encourage big organizations to take their carbon emissions seriously by saying, 'If you don't reduce your carbon, you're going to get hit with the taxes.' (Interviewee 6)

However, the study reveals a decline in the coercive influence of the government over time. The transition from the Higher Education Funding Council for England (HEFCE) to the Office for Students (OfS) marked a significant shift in regulatory emphasis. Many interviewees expressed dissatisfaction with the OfS's perceived lack of engagement with sustainability issues:

> There doesn't seem to be anything at all in their [OfS's] remit around sustainability … the OfS has said that the estate management record which we do each year … around carbon reporting, they're not interested in receiving that at all. That's quite a step backwards, in my opinion. (Interviewee 7)

The withdrawal of key sustainability programs and funding streams further compounded the weakening of coercive pressures. Media reports lamented the loss of initiatives like the Capital Investment Framework and the Student Green Fund:

> The landscape looks bereft of any significant support or incentive for sustainable development in universities in England. (Lightfoot, The Guardian, 2016)

The study also highlights the short-termism embedded in government policies, which often prioritized immediate financial savings over long-term sustainability goals. For instance, funding criteria that mandated five-year payback periods for CM projects excluded many transformative initiatives, limiting universities' capacity to implement substantial changes.

Declining and disconnected normative institutional influences

Normative pressures emerged as a powerful force shaping universities' CM practices, with students and student-led organizations playing a central role. Student-led activist groups like People & Planet exerted normative influence through initiatives such as the University League, an annual ranking that holds universities accountable for their environmental performance. Participants described the league as a monitoring mechanism that pushed institutions to improve their CM practices:

> People & Planet is definitely a monitoring mechanism … all their information is in the public domain … I worked in previous organizations [in other sectors] where you didn't have your own People & Planet; and effectively the way you were committing   your impacts you could pick and choose. (Interviewee 11)

Students' unions and activist campaigns also amplified normative pressures, leveraging media platforms to critique universities' CM performance. Despite this, the findings indicate a waning influence of normative pressures in recent years. Some participants noted that the University League's impact had diminished, with fewer senior executives prioritizing its metrics in decision-making processes:

> The University League does have influence, but less so than it has been the past, I think that its impact has waned somewhat (Interviewee 4)

The data present evidence that numerous stakeholders remained disconnected. For instance, there were initiatives by People & Planet and the Environmental Association for Universities and Colleges (EAUC) to collaborate on developing league tables and a green scorecard. Nevertheless, these initiatives were not collaborative, as the activist organization and the professional association experienced disagreements. Rather, they ceased communicating about these matters and worked separately.

[…] the key one is between the EAUC and the People & Planet, where it's a complete disconnect and both parties have effectively blamed the other for their lack of joined up approach. (Interviewee 4)

Mimetic institutional influences and active organizational imitations

The findings also underscore the role of mimetic pressures, as universities frequently benchmarked their CM practices against those of their peers. This behaviour reflected an effort to reduce uncertainty and maintain competitive parity. As one participant explained:

> We always pay attention to that to see what other people are doing, because I guess it's just a way of sharing best practices. (Interviewee 13)

League tables and media coverage further facilitated mimetic influences by showcasing exemplary practices. Universities with strong CM reputations were often regarded as sector leaders, setting standards for others to emulate. For instance, one participant described how a neighbouring university's ambitious carbon targets spurred internal discussions:

> If that has good news coverage, and the sector really highlights and identifies that, then that would probably have some influence over our senior management team. (Interviewee 4)

The findings indicate that universities' mimicking actions are not mindless passive copying behavior simply because of external isomorphic pressure. Instead, they imitate peers' CM practices mainly to actively gain new knowledge and experience, reduce uncertainty, strengthen competitiveness and/or increase legitimacy. Ultimately, people must consciously choose who and what behaviors they wish to emulate. Imitating the successful peers' actions represents a rational and even strategic approach.

Research question 2: In the process of CM engagement, how do English public universities respond to these institutional influences?

English public universities employed a range of strategies to navigate the institutional pressures surrounding CM. These strategies aligned with Oliver's (1991) framework, encompassing acquiescence, compromise, avoidance, defiance, and manipulation. The findings reveal both the opportunities and constraints shaping organizational responses.

Acquiescence Strategies

Acquiescence responses were most evident in areas where institutional pressures aligned with universities' operational priorities. Compliance with building regulations and planning permissions, for example, was driven by strong coercive pressures and a desire to minimize legal and financial risks. As documents noted:

> Part L of the Building Regulations sets out requirements for energy efficiency and the effective control of buildings and associated plant … a major driver for the increase in energy efficiency and carbon reduction. (University A, 2018)

Imitation, another form of acquiescence, was prevalent in universities' engagement with league tables and benchmarking exercises. Participants described how senior management used these tools to assess performance and allocate resources strategically:

> If other universities that we compete against seem to be doing better than us in relation to sustainability, then that could be quite a strong driver for getting additional resources and additional time to do more in that particular area. (Interviewee 5)

Compromise Strategies

Compromise emerged as a dominant strategy among universities attempting to balance competing demands from stakeholders and their own organizational priorities. In contexts where external expectations conflicted with internal goals, universities sought middle-ground approaches to navigate these tensions.

One notable example of compromise was the use of relative carbon reduction targets. While absolute targets are critical for meaningful progress, universities frequently relied on relative metrics to accommodate growth in their operations. This strategy allowed them to demonstrate improvements in energy efficiency while maintaining their competitive priorities, such as campus expansion and student recruitment. A participant reflected on this dynamic:

> The absolute targets will be challenging to meet … but when you look at energy intensity per student or per square metre, we've made significant improvements. (Interviewee 12)

However, this approach drew criticism for its limited alignment with broader societal expectations for environmental responsibility. Participants acknowledged that prioritizing relative targets often created a legitimacy gap, as stakeholders increasingly demanded absolute reductions in emissions:

> We need to reduce just absolutely everything … whether it's per student or per pound of income, the total emissions are what matters. (Interviewee 13)

Universities also employed compromise strategies in response to financial constraints. Long-term CM projects, which often require a substantial upfront investment, were frequently deprioritized in favour of short-term initiatives with quicker returns. This short-termism was driven by pressures from finance departments and senior management to justify expenditure with immediate operational benefits. One participant illustrated this tension:

> The low-hanging fruit has been picked. To move to the next stage requires significant investment, and it won't necessarily pay back quickly. That's a difficult conversation. (Interviewee 17)

Such balancing acts enabled universities to partially meet stakeholder expectations while preserving their financial and operational autonomy. However, the findings also reveal the limitations of these strategies in advancing transformative change, as universities remained constrained by internal priorities and structural pressures.

Avoidance Strategies

Avoidance tactics were less prominent but nevertheless evident in universities' responses to institutional pressures. These strategies typically involved symbolic compliance, where universities engaged in visible but low-impact initiatives to project an image of environmental responsibility.

One participant described how a university's heavily publicized CM-related project garnered significant media attention but delivered negligible environmental benefits:

> It achieved a huge amount of publicity … but when I asked for the stats on the weight of the rubbish collected, it was negligible. It was more about good PR than actually making a difference. (Interviewee 6)

While such activities enhanced universities' reputational capital, they often diverted resources from more substantive CM efforts. Participants highlighted the risks of relying on symbolic actions, noting that they could undermine long-term credibility if stakeholders perceived them as superficial or disingenuous.

Universities also avoided addressing challenging CM issues by focusing on easier, more visible initiatives. For example, energy-saving projects with short payback periods were prioritised over more complex and costly interventions, reflecting a tendency to sidestep difficult decisions:

> There's always a focus on the quick wins … but we're not going to achieve net-zero carbon without tackling the harder, more expensive projects. (Interviewee 11)

Avoidance strategies, while enabling universities to manage short-term reputational risks, often came at the expense of substantive progress in CM.

Defiance Strategies

Instances of defiance, where universities openly resisted institutional pressures, were relatively rare but revealed important insights into organizational agency. Defiance typically arose when

institutional demands were perceived as misaligned with universities' operational priorities or resource capacities.

One example involved universities challenging the criteria used in sustainability rankings, such as the University League. Some institutions argued that the metrics unfairly penalized research-intensive universities or imposed excessive administrative burdens. This led to coordinated resistance and negotiations with People & Planet, resulting in changes to the league's assessment methodology:

> The Russell Group universities felt they were being penalized … and there was a big consultation event to address their concerns. People & Planet had to adjust their approach. (Interviewee 1)

While this outcome reflected universities' ability to influence institutional frameworks, it also highlighted power asymmetries in stakeholder relationships. Wealthier and more influential institutions were better positioned to negotiate favourable terms, potentially undermining the legitimacy and effectiveness of external accountability mechanisms. A comment was found in the People & Planet's website:

> The campaign to undermine the university league ... caused us to expend our already very small resource in an attempt to work with organisations far larger and richer than us. We were therefore forced to reduce our capacity spend on the much increased demand for university staff support and communications. (People & Planet, 2019)

Manipulation Strategies

Manipulation strategies, where universities actively sought to shape institutional pressures, were evident in their engagement with sector-wide initiatives and lobbying efforts. These strategies enabled universities to align external expectations with their internal goals, leveraging their influence to reshape the institutional landscape.

For example, universities participated in professional networks and consortia to advocate for policies that supported their CM priorities. A participant described how these collaborations facilitated knowledge sharing and collective action:

> We work closely with other universities and professional bodies to influence policy and share best practices. It's about shaping the conversation at a sector level. (Interviewee 9)

Manipulation also involved efforts to enhance organizational legitimacy through strategic engagement with stakeholders. Universities used media campaigns and public events to showcase their sustainability achievements, framing their narratives in ways that aligned with societal expectations. One participant noted:

It's not just about doing the work; it's about making sure people know we're doing it. That's how we maintain our position as a leader in sustainability. (Interviewee 4)

These strategies demonstrated universities' capacity to navigate institutional pressures proactively, aligning external demands with their strategic objectives while maintaining legitimacy and competitiveness.

The findings reveal distinct patterns in how English public universities navigate institutional pressures for CM. Universities exhibit strategic variation in their responses, shaped by differences in financial resources, stakeholder influences, and regulatory pressures. While some institutions adopt substantive acquiescence CM strategies embedded in long-term sustainability planning, others engage in more symbolic efforts aimed at reputational enhancement without significant structural change (e.g., compromise and avoidance strategies). These findings set the foundation for a deeper discussion of how institutional factors and strategic choices shape sustainability engagement.

Taken together, these findings illustrate how the weakening of coercive pressures, the inconsistency of normative influences, and the selective adoption of mimetic practices have shaped universities' strategic engagement with carbon management. They reveal a pattern of partial and uneven institutional change, in which external expectations are often acknowledged rhetorically but translated into action only when aligned with existing priorities or available resources. The following discussion interprets these patterns through the lens of neo-institutional theory to explain why certain response strategies predominate within the sector.

Discussion

To address the research questions, this paper shows that universities in England encounter a mix of coercive, normative, and mimetic pressures on their CM engagement, but to differeing degrees. Respondents consistently referred to regulatory bodies imposing coercive demands from central and local government and the sector regulator. This aligns with previous research using institutional frameworks, which highlights regulators and governmental agencies as significant coercive influences shaping organizations' sustainability activities (see for example: Beddewela and Fairbrass, 2016).

Regarding normative pressure, "a logic of appropriateness replaces, or sets limits on, instrumental behaviour" (Scott, 2014, p. 64). The findings indicate that CM actions are widely perceived as 'the right thing to do', with normative pressures, though limited, emanating from

students, activist organizations, and professional associations. These results are consistent with earlier research showing that public expectations, activist groups and education may contribute to normative institutional pressures (Wijethilake *et al.*, 2017). Mimetic pressures also remain influential: practices adopted by peer institutions strongly shape perceptions of what is legitimate or effective. Universities often emulate the operations of perceived leaders, reflecting mimetic isomorphism, a pattern well documented in sustainability research (see for example: Ullah *et al.*, 2020).

However, the findings suggest that weakening legal and governmental pressure is an institutional impediment to advancing CM. In some cases, government agencies exert insufficient or even counter-productive influence, partly due to their short-term focus. These results accord with institutional theory, which holds that organisational responses to institutional demands are shaped by coercive pressures and that resistance may arise when those pressures are weak (Oliver, 1991). While coercive pressures can promote sustainability activity, engagement driven mainly by passive regulatory compliance tends to remain superficial (Scott, 2014). Previous studies likewise show that short-termism, and weak enforcement undermine regulatory impact (Veiga Ávila *et al.*, 2019).

Similarly, the study reveals insufficient societal (non-governmental) pressure is a further obstacle. Some participants perceive only limited pressure from students, and the influence of the University League has declined. Neo-institutional theory suggests that without strong societal expectations, universities may adopt sustainability practices symbolically, particularly when they lack tangible benefits (Fatima and Elbanna, 2023).

The research therefore exposes a tension between moral legitimacy, which advocates systemic carbon reduction and pragmatic organisational self-interest. Universities were found to emply both acquiescence and resistance strategies (Oliver, 1991), with the latter were more prevalent. Acquiescence tactics such as compliance and imitation appeared when institutional demands aligned with internal interests, yet these seldom produced deep transformation. Resistance strategies, including compromise, avoidance, defiance, and manipulation, were more common where institutional pressures conflicted with internal priorities. Such actions frequently served symbolic legitimacy management rather than substantive change. For example, relative carbon targets, although easier to meet, yield weaker reductions and risk greenwashing (Dahlmann *et al.,* 2019), whereas absolute targets align more closely with

genuine emissions cuts. The study also highlights the neglect of scope 3 emissions, an often overlooked aspect of organisational CM strategies, reinforcing calls for a whole-systems approach to institutional carbon accounting (Schaltegger and Csutora, 2012).

A further contribution lies in revisiting Oliver's (1991) framework, particularly the treatment of imitation. In existing literature, mimetic behavior is often framed as passive acquiescence under institutional uncertainty. Modell (2001) argues that this underplays the agency involved in imitation and overemphasizes environmental determinism. The present findings support the view that mimetic behaviour can be strategic and proactive rather than purely reactive (Abernethy & Chua, 1996; Modell, 2001). Imitation can thus operate as a rational strategy to reduce uncertainty, enhance competitiveness, and build legitimacy.

The findings also indicate that universities' strategic responses are not static. Engagement with CM evolves over time, influenced by external pressures, funding availability, and leadership changes. Some institutions initially comply but later shift towards compromise or manipulation as external scrutiny weakens, while others move from avoidance to acquiescence when financial incentives align with sustainability objectives.

Another notable pattern is the interplay between reputational benchmarking and substantive sustainability action.. Universities with established sustainability reputations often pursue ambitious CM initiatives, whereas others use sustainability narratives mainly as branding tools. Distinguishing between symbolic and substantive engagement is critical for assessing the effectiveness of CM commitments. Institutions that integrate CM within strategic planning achieve more measurable outcomes, while those focused on public perception favour low-impact initiatives but high visibility projects (Delmas *et al.*, 2010). Although benchmarking can facilitate genuine learning and the diffusion of best practice, it can equally serve symbolic adaptation when rankings become reputational rather than developmental instruments.

The findings further underscore institutional agency in shaping sustainability transitions. Structural constraints such as funding and regulation are influential, yet universities retain discretion in navigating these pressures. Examining their strategic responses provides a nuanced understanding of sustainability governance in higher education, showing that engagement with CM depends not only on external forces but also on internal strategic choice (Lounsbury, 2008; Greenwood *et al.*, 2011).

Finally, the analysis illuminates the centrality of power dynamics in shaping institutional pressures and organisational responses. At the macro level, power asymmetries influence the strength and consistency of sustainability governance. Government agencies wield formal authority through legislation, whereas advocacy groups rely on moral persuasion. The relative power of these actors determines the coherence of CM pressures. The shift from HEFCE to the Office for Students, for example, has weakened regulatory oversight and created institutional voids that allow greater discretion in defining sustainability commitments. Some universities exploited this gap to retain flexibility, resulting in variable engagement levels.

At the organizational level, power affects the capacity to resist or negotiate institutional demands. Larger universities with substantial resources can buffer external scrutiny or influence policy debates, sometimes lobbying for exemptions from reporting requirements on the grounds of their research intensity. Smaller universities, by contrast, often struggle to meet expectations, exposing inequalities within the institutional field (Greenwood and Hinings, 1996). In processes of compromise, avoidance, or manipulation, organizational self-interest, pursing, pursuing growth, efficiency, and financial return, frequently overrides environmental or community concerns. Such imbalances risk marginalizing weaker stakeholders and constraining genuine, long-term CM change.

By analyzing power across institutional and organizational levels, this study shows that it not only shapes the trajectory of institutional pressures but also determines whose interests prevail raising critical questions of equity and accountability. Consistent with recent calls to integrate power more explicitly into neo-institutional theory (Eitrem *et al.*, 2024; Munir, 2020), the analysis contributes to a more critical and context-sensitive understanding of how institutional processes both reflect and reproduce power relations.

Policy and Practical Implications

This study holds several implications for university leaders, policymakers, and other institutional stakeholders involved in the governance of higher education sustainability. The findings reveal that shifts in the regulatory landscape and the weakening of coercive pressures following the move to the Office for Students have reduced universities' motivation to engage substantively with carbon management (CM). First, this underlines the importance of re-establishing strong, consistent, and long-term coercive mechanisms, particularly from national-

level policymakers and regulators. The current absence of enforcement measures and coordinated leadership around CM undermines strategic momentum. Policymakers may therefore consider reinstating sustainability-linked funding incentives and mandatory reporting requirements to embed CM more firmly within institutional planning cycles and governance structures.

Second, the analysis highlights that normative and mimetic pressures, such as those stemming from student organisations, league tables, and sectoral benchmarking, remain fragmented and inconsistently aligned with absolute carbon reduction goals. Institutions such as People & Planet and other league table developers could work more closely with regulators and funders to co-produce robust, context-sensitive indicators that are less open to gaming and more reflective of whole-institution transformation. Strengthening the legitimacy and comparability of these measures would also reinforce external accountability and societal trust in universities' climate commitments.

Third, the evidence suggests that universities are more likely to act substantively when CM initiatives align with both short- and long-term organizational interests. University leaders can leverage this finding by embedding CM within existing performance frameworks, including estate development, procurement, and institutional reputation strategies. Introducing internal incentive systems such as carbon budgeting or devolved carbon targets, can help internalize CM as a core operational concern rather than a peripheral activity.

Fourth, the findings caution against the persistence risks of symbolic compliance and superficial initiatives that prioritise visibility over impact. University managers and sustainability officers should avoid over-reliance on short-term or high-profile projects that do little to reduce absolute emissions. Instead, they should prioritise long-term infrastructure investment, supported by access to capital and longer payback thresholds, to move from incremental improvement towards systemic transformation.

Finally, the research identifies the significance of power asymmetries between large research-intensive institutions and smaller grassroots actors. Addressing these imbalances through co-production with students, academic staff, and community

stakeholders in the design and governance of CM strategies can democratise sustainability decision-making and enhance moral legitimacy. Strengthening these participatory mechanisms would also help align universities' internal governance with the wider societal expectation that they act as credible, transparent, and accountable contributors to national net-zero objectives.

Beyond policy and managerial relevance, the study's insights carry broader societal significance. As anchor institutions, universities shape local emissions trajectories, employment practices, and social norms. Demonstrating credible and transparent CM progress not only reduces institutional footprints but also influences public attitudes and professional behaviours through graduates, staff, and community partnerships. By embedding CM within governance and accountability frameworks, universities can model evidence-based climate action, helping to normalise sustainability as an expectation of organisational life and contributing to societal resilience and wellbeing.

Conclusions

This study contributes to understanding carbon management in higher education by applying Oliver's (1991) strategic responses to institutional pressures framework to English public universities. It reveals that universities frequently adopt resistance rather than acquiescence strategies, often taking actions that are symbolically aligned with stakeholder expectations but limited in transformational impact. In doing so, the research advances neo-institutional theory by questioning the traditionally passive view of imitation, highlighting the influence of power relations in institutional interactions, and illustrating the practical tensions between organisational growth priorities and environmental legitimacy.

It study also offers practical insights for policymakers and institutional leaders on how governance mechanisms can be re-designed to foster meaningful carbon reduction. Strengthening coercive, normative, and mimetic pressures through coordinated policy, sectoral collaboration, and transparent benchmarking would help embed sustainability more deeply in institutional practice. Future research could extend these findings by incorporating a broader range of stakeholders, exploring international comparisons, or analyzing longitudinal data to

trace how CM practices evolve as institutional landscapes and regulatory environments continue to change.

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