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**BUSINESS SCHOOL LEGITIMACY AND THE CHALLENGE OF
SUSTAINABILITY: A FUZZY SET ANALYSIS OF INSTITUTIONAL
DECOUPLING**

ABSTRACT

Business schools face growing institutional pressure to respond to the sustainability agenda, especially since the financial crisis highlighted the need to educate business leaders who engage with issues beyond a profit imperative. While business schools increasingly signal their engagement with global issues, such as sustainability, there are also suggestions that they decouple their espoused commitments from their practices. Rather than institute actual change and include sustainability in organizational activities, business schools may merely indicate that such change is taking place. This study examines the key organizational and strategic conditions under which business schools decouple their sustainability policies from practices. We draw on interviews with 40 deans of UK business schools and analyze the data using fs/QCA, a method that investigates combinations of individual conditions. We find evidence to suggest that tight coupling is associated with small, prestigious business schools and that decoupling is associated with business schools that are large, wealthy or lacking in expertise. We discuss the implications of these findings for business school legitimacy and institutional theory.

Keywords: Business schools, Legitimacy, Sustainability, Institutional Theory, Decoupling

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INTRODUCTION

The legitimacy of business schools has come under renewed scrutiny following the corporate scandals at the start of the millennia and the ensuing financial crisis (Hommel & Thomas, 2014; Wilson & Thomas, 2012). Recent challenges to business schools' legitimacy stem not only from their product offering (Hommel & Thomas, 2014; Pfeffer & Fong, 2002; Wilson & Thomas, 2012), but also their purpose and broader role in society. Key critiques of business schools have ranged from the failings of the management theory taught by business schools (Ghoshal, 2005) and how they prepare students for the future (Cornuel, 2007; Starkey & Tempest, 2005), to how business schools are, or are not responding to the challenges arising from societal issues, such as sustainability (Boyle, 2004; Schoemaker, 2008) and responsibility in management education (Cornuel & Hommel, 2015). Recent debates on the role of business schools have highlighted the need for greater societal engagement and for incorporating sustainability and corporate social responsibility (CSR) into business schools' remit, and in particular embedding it in the curriculum taught in business schools (Hommel & Thomas, 2014; Jamali & Abdallah, 2015). In this paper we explore the organizational and strategic factors that influence whether sustainability becomes successfully embedded in business schools, which have explicit sustainability commitments.

Business schools increasingly signal that they are responding to the imperative for more sustainable approaches to business education and the taught curriculum (Alcaraz & Thiruvattal, 2010; Rasche & Gilbert, 2015). However, the risk that business schools decouple their actual practice from their espoused policies is very real, and whilst business schools may say they are embedding sustainability, they may instead decouple policy and practice (Rasche & Gilbert, 2015). This decoupling, where activities or policies are signalled externally, but not implemented internally, may result from business schools' emphasis on prestige and reputation, which some claim is jeopardizing business schools' efforts to redefine or rebuild their role and legitimacy in society (Akrivou & Bradbury-Huang, 2015). This is because the fundamental changes required to legitimize business schools from a societal responsibility perspective may not be commensurate with reductionist market based measures (e.g. graduate salaries, and 'value for money') which have been used to measure business schools' performance. These reductionist measures underpin external perceptions of prestige and reputation but place little emphasis (Akrivou & Bradbury-Huang, 2015) on the promotion of environmentally sustainable business practices and social justice (Akrivou & Bradbury-Huang, 2015); issues which underlie contemporary views of business school legitimacy.

Other researchers have suggested that business schools are reaching a "tipping point" (Hommel & Thomas, 2014:7), which will see business schools change, and redefine or rebuild their legitimacy by addressing and integrating CSR and sustainability in the business school curriculum (Hommel & Thomas, 2014; Jamali & Abdallah, 2015). While earlier work has identified potential determinants of sustainability implementation in practice (Matter & Moon, 2004), this paper contributes to the debate through an analysis of the combinations of organizational and strategic characteristics that mean business schools "walk their talk" (Rasche

& Gilbert, 2015:248) and tightly couple, rather than decouple their espoused sustainability commitments from their actual practice. Within this analysis we pay particular attention to the relationship between business schools' prestige and tightly coupled versus decoupled outcomes. We put forward two research questions. Firstly, what combinations of organizational and strategic characteristics are associated with whether business schools tightly couple, and implement their espoused sustainability commitments in practice, or decouple, where their commitments to sustainability remain symbolic? And secondly, how does a business school's prestige, in conjunction with other characteristics, relate to a tightly coupled outcome versus a decoupled outcome at business schools?

We focus our analysis on the provision of sustainability within the taught curriculum since this reflects the commitment of business schools to the education and development of responsible managers. We base our research in the UK business school sector since the country is considered a leader in CSR and sustainability in management education (Matten & Moon, 2004). At the same time changes toward greater commercialization in the country's higher education sector may place attention on non-financial issues, such as sustainability, at risk (Moon & Orlitzky, 2011). We draw on interviews with 40 deans of UK business schools, and frame our research in institutional theory and decoupling (Meyer & Rowan, 1977). We address our research questions empirically using fuzzy set (fs) qualitative comparative analysis (fs/QCA) (Ragin, 2008). This methodology is appropriate both for robust medium-sized sample analysis (Schneider & Wagemann, 2007) and for the identification of sets or combinations of conditions, which are associated with organizational outcomes (Ragin, 2008).

Our study makes four contributions. Firstly, we show the combinations of organizational and strategic requirements that are associated with actual, rather than externally signalled

commitment to sustainability and responsible management education. Whereas earlier research has either conceptually addressed (e.g. Akrivou & Bradbury-Huang, 2015; Kearins & Springett, 2003; Rasche & Gilbert, 2015; Rusinko, 2010) or empirically explored the impact of individual organizational characteristics on business schools' sustainability integration (Benn & Dunphy, 2009; Maloni, Smith, & Napshin, 2012; Tilbury, Crawley, & Berry, 2004) and legitimacy (Rynes, Trank, Lawson, & Ilies, 2003; Springett & Kearins, 2001; Stubbs & Cocklin, 2008) this is the first paper to test sets of characteristics that are associated with the successful implementation of sustainability in business schools. Identifying the sets of conditions necessary for tightly coupled and decoupled outcomes is an important contribution as it gives a clearer picture of the necessary combinations of organizational and strategic characteristics required to allow business schools to deliver on sustainability. In doing so we answer calls for a better understanding of the organizational and strategic dynamics that shape business schools' institutional responses to societal expectations (Hommel & Thomas, 2014), and for a greater understanding of the micro-level processes and practices that business schools adopt in response to institutional demands (Pettigrew, 2014).

Secondly, we apply fuzzy set (fs) qualitative comparative analysis (fs/QCA) (Ragin, 2008) to our data set. The advantage of fs/QCA is that, rather than identifying and isolating any single factor explanation for a given outcome, fs/QCA can identify a constellation or combination of factors that are associated with a given outcome (Ragin, 2008) using qualitative data. While fs/QCA has been successfully adopted in recent management research (Bell, Filatotchev, & Aguilera, 2014; Crilly, Zollo, & Hansen, 2012; Fiss, 2011; Misangyi & Acharya, 2014; Rhee & Fiss, 2014) this is the first instance, we are aware of, where it has been used in

business schools research. As such, we are also responding to calls for the adoption of new methodologies to advance the field of business school research (Pettigrew, 2014).

Thirdly, we make a theoretical contribution by challenging the premise that high profile and prestigious organizations decouple their policies from practice in order to maintain institutional legitimacy and, by maintaining their institutional legitimacy, gain access to financial resources (Meyer & Rowan, 1977).

Fourthly, contrary to Meyer and Rowan's (1977) view that those organizations that intend to decouple are more likely to rely on easily decoupled organizational structures to signal their commitment to stakeholders, we find that easily decoupled means of delivering sustainability in the business school curriculum are relied upon *both* for business schools that decouple their policy from practice, *and* those that tightly couple their practices to their espoused policies. This is a novel insight that opens up the possibility that a given strategic intervention can have widely different results depending on how it interacts with other organizational characteristics and operational structures.

The rest of this article is organised as follows; a review of the salient literature is provided in the next section which firstly outlines the theoretical role of legitimacy, prestige and decoupling in business schools and secondly summarises the organizational and strategic characteristics that influence legitimacy, prestige and decoupling. The methodology section then explains the empirical context, the fs/QCA method and sample before the main findings of this research are presented. A discussion section follows, which includes the implications and limitations of the study. A final section concludes the paper.

THEORETICAL DEVELOPMENT

Legitimacy, prestige and decoupling in business schools

Legitimacy is the “generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms” (Suchman, 1995:574). This view of legitimacy refers to the collective perception of society’s expectations (Bitektine & Haack, 2015), which for business schools, as organizations with a social role, involves expectations to authentically engage with sustainability at an organizational level or face the consequences of disapproval and loss of legitimacy (Rasche & Gilbert, 2015). For legitimacy to be conferred, business schools must appear to “walk-the-talk” (Rasche & Gilbert, 2015:248) when they address the sustainability imperative, and not simply signal that they are taking sustainability seriously and take no discernible or substantive action (Boyle, 2004). Consequently business schools’ organizational legitimacy is, in some important ways, dependent on the way in which they respond to, and address issues affecting sustainability, such as the environment, society and economic stability (Rasche & Gilbert, 2015).

Legitimacy and prestige are intertwined in the context of business schools, since legitimacy expectations are particularly high for prestigious organizations (Pfeffer & Salancik, 1978), and external stakeholders subject prestigious organizations to greater scrutiny than less prestigious organizations (Gioia & Corley, 2002). In practice, a business school’s prestige is the perceived quality and excellence of the business school, and is key to students’ decision to apply and, if successful, accept a place of study (Toma, 2012). Toma (2012) argues that prestige can help reduce business schools’ resource dependency and it is therefore in business schools’ interest to pursue strategies that bestow legitimacy and consequently improve prestige. The

prestige of universities, as reflected in their reputational standing can be viewed as a resource (Abbot & Barlow, 1972), which can confer power and organizational autonomy.

Decoupling, or signalling compliance but allowing “business as usual” to continue (Weaver, Trevino, & Cochran, 1999:540) is a means to achieve or enhance legitimacy, provided the decoupling is not exposed (Bromley & Powell, 2012). Initiatives that exist in practice but are designed to be separated or easily disconnected from the important core functions of the organization are viewed as structurally decoupled (Maclean & Behnam, 2010). Originally, Meyer and Rowan (1977) deemed decoupling to be a legitimate response to competing and incompatible stakeholder pressures, however recent work treats decoupling as akin to moral organizational failure (Bromley and Powell, 2012). As organizational activities become ever more visible and scrutinized decoupling in itself presents a potential threat to organizational legitimacy as policy-practice decoupling generates a “legitimacy facade” (Maclean & Behnam, 2010:1499); especially if it is associated with explicit organizational claims of commitment. Discrepancies between claims of, and actual engagement with, sustainable practices and integration have been found to raise real threats to business schools’ legitimacy (Boyle, 2004; Coopey, 2003). These findings have generated calls for research that moves beyond the rhetoric (Badelt & Sporn, 2011; Cornuel & Hommel, 2015), and instead begin to address the relative degree of alignment, or tight coupling, between business school’s espoused claims of sustainability in the curriculum and the actual implementation of such practices or content in the curriculum. In particular, to understand what role business schools’ prestige plays in whether they decouple their sustainability commitment.

Organizational and strategic factors in business school decoupling

Developing a sustainability strategy, or integrating sustainability into existing strategies and practices, is important for today's organizations in general (Porter & Kramer, 2006) as a means to garner legitimacy (Vidaver-Cohen & Brønn, 2008). Business schools as educators of future leaders and creators of knowledge are particularly associated with this agenda (Gardiner & Lacy, 2005; Khalifa, 2010). From a business education perspective, the challenges in raising business school's legitimacy include; "developing responsible leaders who are prepared to deal with complex and value-laden issues in economy and society" (Dyllick, 2015:17), and to ensure that the sustainability is integrated in the educational offering, so that managers ultimately contribute to business practices that are responsible, accountable and minimize harm (Séto-Pamies & Papaioikonomou, 2015). A growing tranche of literature has sought to better understand the role, nature and character of sustainability in business schools. Studies that report on sustainability implementations in business teaching describe a challenging organizational process (Exter, Grayson, & Maher, 2010; Maloni et al., 2012; Solitander, Fougere, Sobczak, & Herlin, 2012) fraught with internal resource limitations and resistance (Doherty, Meehan & Richards, 2015), which in turn constrain and mould strategic decision-making. Better incorporation of the sustainability imperative is therefore both "important and timely" (Rasche & Gilbert, 2015: 241) as it provides a way for business schools to respond to calls for greater socially derived legitimacy in tandem with moves to greater market responsiveness (Schoemaker, 2008).

A key strategic area in which business schools can deliver on the sustainability agenda is in the realm of the business school curriculum, and much research suggests that sustainability is on the rise in the curriculum across the world's business schools (Amran, Khalid, Razak & Haron, 2010; Krizek, Newport, White, & Townsend, 2012; Moon & Orlitzky, 2011; Naeem &

Neal, 2012; Naeem & Peach, 2011; Scott & Gough, 2006). However, the manner and extent to which sustainability is offered as part of the curriculum differs, and a discussion of how to integrate sustainability into the business school curriculum has ensued. This has included a special issue in *Management Education* in 2009, focusing on “Greening and sustainability across the management curriculum”. A key outcome of this debate is the recognition that business schools need to think strategically about how to integrate sustainability into the curriculum, meaning that business school’s objectives and resource constraints are considered, when the curriculum design is addressed (Lidgren, Rohde, & Huisinigh, 2006; Rusinko, 2010; Scott & Gough, 2006). Research has also developed models that consider the extent to which sustainability is integrated into the curriculum (Rusinko, 2010; Sterling, 2013; Thomas, 2009) and, the resources required to provide differing levels of sustainability integration (Moon & Orlitzky, 2011; Rusinko, 2010). A key debate has also focused on whether the curriculum should focus on engendering changes in students’ behaviour, viewed as educating *for* sustainability, or focus on facilitating learning that helps students understand what sustainability is, deemed as educating *about* sustainability (Thomas, 2009), and finally how business schools structurally address the introduction of sustainability (Rusinko, 2010; Sterling, 2013).

Research has identified two key ways in which business schools can structurally respond when introducing sustainability into the curriculum, representing a choice at the strategic level within business schools. Either sustainability can be introduced into existing course and module provisions, or it can be introduced via new course offerings, programmes and structures (Rusinko, 2010). Where sustainability is introduced via the implementation of new structures and courses that are separate from existing offerings, rather than weaved in across the existing course offerings, sustainability has been deemed to be “bolted-on” (Sterling, 2013; Thomas, 2009).

Conversely, where sustainability is marbled through existing course offerings across the curriculum, business schools are said to have taken a “built-in” approach (Sterling, 2013; Thomas, 2009). A bolt-on approach, generally, does not represent a wholesale change in the curriculum design and content on offer, but rather the approach introduces separate taught units, which emphasise sustainability. Thomas (2009) refers to the bolt-on approach as concerned with cosmetic change. This is because as an initial response, a bolt-on approach to curriculum design is intended to teach students about sustainability in isolation, rather than to engender change in subsequent behaviour and decision-making. A built-in approach, by comparison, is recognised to involve a more holistic approach and potentially a deeper engagement with sustainability. Rather than have as its objective to educate about sustainability, it seeks to educate for sustainability, resulting in behavioural change that promotes green behaviour. Thomas (2009:248) refers to this mode, as “serious greening”. The shift from education about to educating for sustainability is a nuanced, but important shift. In the latter approach norms and policies of teaching practice are realigned with sustainability objectives, resulting in a broader coverage of the sustainability paradigm throughout the curriculum. This in turn can result in deeper change and managerial decision making that takes account of the sustainability agenda (Sterling, 2013). When considered in the context of Meyer and Rowan’s (1977) articulation of decoupling, the built-in and the bolt-on approaches have parallels with the conditions Meyer and Rowan (1977) argue make decoupling more or less likely. In particular, where course offerings or subject units can easily be disconnected from the business schools’ more central curriculum of traditional business school subjects such as economics, accounting and finance, there is clear potential for business school’s to decouple their sustainability curriculum from their technical core, a potential that is

seemingly lessened, with a built-in approach, where sustainability becomes weaved in across the existing course offering.

Beyond this strategic choice to build-in or bolt-on, business schools embody a set of organizational characteristics, which may be expected to influence the degree to which this legitimacy building through sustainability takes place. Organizational size, financial resources, expertise and prestige have all been identified as potential determinants in whether business schools decouple or tightly couple their policy from practice (Bromley & Powell, 2012; Christensen, Pierce, Hartman, & Hoffman, 2007; Edelman, 1992; Matten & Moon, 2004; Moon & Orlitzky, 2011; Murphy, Sharma, & Moon, 2012; Rasche & Gilbert, 2015).

The relative role of organizational size in decoupling versus tight coupling has been subject to some debate. Whilst Meyer and Rowan's (1977) original premise was that larger organizations were more likely to decouple, empirical research has challenged this and instead suggested that larger organizations are less likely to decouple since they are subjected to greater scrutiny compared with smaller organizations (Bromley & Powell, 2012; Edelman, 1992). This divergence in interpretation reflects the gap between Meyer and Rowan (1977) earlier position that decoupling is a rational response by large organizations to competing stakeholder demands, and emerging views that organizations found to decouple policy from practice are subjected to accusations of window dressing (Weaver et al., 1999). Such accusations can damage both prestige and legitimacy. Whilst decoupling may be conceptually legitimate, in practice large business schools, may jeopardize their reputations, and in turn their legitimacy and prestige, if found to decouple. Given the differences between the theoretical predictions for the relationship between size and decoupling, relative to more recent research (Bromley & Powell, 2012;

Edelman, 1992; Meyer & Rowan, 1977), understanding the role of business school size in shaping business schools' responses to the sustainability imperative is important.

Rasche and Gilbert (2015) argue that business schools with more financial resources available to them are less likely to decouple their sustainability commitments, since they can more easily bear the costs associated with sustainability integration. In contrast Meyer and Rowan (1977), suggested that where large organizations successfully decoupled policy from practice, enabling them to address the demands of multiple stakeholders, the result was increased legitimacy, which in turn could open up further avenues for investment and funding. In the financially constrained environment many business schools face, where decreased government funding and an increased reliance on third party funding shapes organizational responses to societal issues (Rasche and Gilbert, 2015), it is important to analyze the degree to which financial strength does, or does not, play a role in business schools' decision to decouple or tightly couple their sustainability commitment.

With regards to expertise, surveys of business schools introducing sustainability and CSR into the curriculum continue to find that faculty with the right skills and knowledge is crucial to successfully integrate sustainability into the curriculum (Christensen et al, 2007; Matten & Moon, 2004; Moon & Orlitzky, 2011; Murphy et al., 2012). Decoupling is deemed more likely where there is incongruence between business schools' stated goals and the knowledge, skills and resources required to deliver on the stated policy (Bromley and Powell, 2012).

Finally, the relative prestige of the business school may also be expected to influence its engagement with sustainability education. The more prestigious the business school is deemed to be, the greater the expectation that sustainable and responsible management education will be a

key objective for the organization (Evans, Treviño & Weaver, 2006; Rasche & Gilbert, 2015), as those deemed most prestigious in a particular field, are also held to higher legitimacy expectations (Moon & Orlitzky, 2011). Earlier studies, in the main, find that prestige, unlike other organizational characteristics such as age or religious affiliation, is an important factor in whether a business school engages with CSR and sustainability education (Moon & Orlitzky, 2011) or ethics education (Evans et al., 2006). There is thus an implied suggestion that higher prestige business schools are more likely to substantively respond to the sustainability imperative, and in turn further enhance their legitimacy. What the nature of this relationship is, is however unclear, with one study suggesting a contradictory line of argument, whereby more prestigious business schools are insulated from societal pressures for greater engagement with responsible practices (Rutherford, Parks, Cavazos, & White, 2012).

In sum, business schools are increasingly subject to institutional pressure to engage with the sustainability imperative (Rasche & Gilbert, 2015) and doing so has been identified as a way for business schools to rebuild or enhance their legitimacy (Cornuel, 2005; Gioia, 2002), which was damaged in the aftermath of the financial crisis (Hommel & Thomas, 2014; Wilson & Thomas, 2012). Integrating sustainability into the business school curriculum has the potential to educate more responsible managers, signal to stakeholders that business schools are aware of and are responding to their broader societal role, and show that business schools can have a positive impact that extends beyond the traditional paradigm of educating profit maximizing managers (Ghoshal, 2005). Earlier research has identified some of the factors that help business schools wishing to integrate sustainability into the curriculum, such as size (Bromley & Powell, 2012), financial resources (Rasche & Gilbert, 2015) and expertise (Matten & Moon, 2004; Moon & Orlitzky, 2011; Murphy et al., 2012). However, relatively little is known about the role these

factors play when combined, or which sets of factors help facilitate the implementation of sustainability in the curriculum and result in a tightly-coupled or decoupled outcome. In particular, research has to date paid little attention to the role of business school prestige in embedding sustainability and building legitimacy, or in how prestige combines with organizational resources in facilitating sustainable curriculum integration. Our contention is that organizational and strategic factors collectively determine whether business schools implement their policies, or decouple policy from practice.

METHOD

Empirical context: UK business schools

At the time of our study, the UK had 122 business schools. The sector educates approximately 20,000 MBA students per year, of which roughly half come from outside the UK (HEFCE, 2016), making the UK business school sector an internationally competitive one (Wilson & McKiernan, 2011). Global competition for students is felt especially keenly by the UK's top business schools, which compete for the best students with countries such as the USA. UK business schools are therefore highly cognizant of, and pay careful attention to, their relative prestige and legitimacy.

In 2011, accreditation bodies, such as the European Foundation for Management Development's Quality Improvement System (EQUIS), the Association of MBAs (AMBA) and the Association to Advance Collegiate Schools of business (AACSB) were beginning to highlight sustainability, but this had yet to form specific requirements. Similarly, while the influential industry-bodies in the UK responsible for funding allocation, encouraged

sustainability engagement, it ultimately remained up to business schools if and how they would respond to the sustainability imperative.

Business schools attention to non-financial concerns is potentially at risk from increased globalization and the progressive marketization (Cornuel, 2007). In particular, the recent changes to the funding structure of UK universities with a shift towards greater commercialization of higher education in general, and business schools in particular (Wilson & McKiernan, 2012), has raised the possibility that non-financial organizational concerns, such as sustainability (Moon & Orlitzky, 2011), become less salient than before. The increasingly competitive context has resulted in a strong emphasis on performance metrics, such as research quality and output, which some suggest has overshadowed the need to address societal responsibilities, such as sustainability (Doherty et al., 2015). Finally, the UK is recognized as a pioneer and leader in CSR and sustainability in management education (Moon & Orlitzky, 2011). However with the leadership role comes the challenge of breaking new ground and implementing initiatives and strategies for which there are no established templates.

The international and national institutional pressures that prevail for business schools in the UK, provide an interesting context in which to understand how business schools are responding to the global sustainability imperative, and what is required for business schools to not only signal but also substantively implement sustainability.

Fs/QCA

We use Ragin (2008) Fuzzy Set Qualitative Comparative Analysis (fs/QCA) to analyze our data. Fs/QCA starts with qualitative data and allows for an analysis of the relevant conditions that

collectively contribute to a given outcome. In our case we draw on our conceptual development to understand which operational and strategic constellations impact on whether business schools are tightly coupled or decoupled. Fs/QCA has been adopted in management research, and several studies have drawn on this method in leading management journals (see for example, Bell, et al., 2014; Crilly et al., 2012; Fiss, 2011; Misangyi & Acharya, 2015; Rhee & Fiss, 2014). Fs/QCA offers some distinct advantages for studies such as ours, which seek to understand the relative importance of a composite set of factors for a given outcome. Whereas other variance based quantitative techniques such as regression analysis are designed to identify the relative contribution of a set of variables to a given outcome, fs/QCA is designed to unpack how these variables in combination relate to a given outcome rather than isolate the variable with the greatest explanatory power (Fiss, 2007). As such, fs/QCA takes a configurational approach, presenting each case (in our case each business school is considered a case) as a configuration of conditions that in aggregate influence the outcome condition, i.e. decoupled or tightly coupled. This allows fs/QCA to explore different patterns that result in the same outcome (Schneider & Wagemann, 2010). Whilst the use of interaction terms in regression analysis can begin to address the role of concurrent factors, there are limits to how many interaction terms can be included in a given analysis (Vis, 2012). Fs/QCA also offers the advantage that it is designed for use on small to medium sized samples such as ours, whereas regression analysis tends to rely on large sample sizes for robust results (Ragin, 2008). Fs/QCA identifies relationships between the predictor conditions that are either *necessary* or *sufficient* for an outcome condition. For example, a relationship based on necessity would mean that outcome B was always related to condition A, whereas a relationship based on sufficiency would mean that condition A, implied outcome B.

QCA analysis is commonly conducted in two ways, either as a crisp set analysis, where outcomes and conditions are measured as binary, or as a fuzzy set, where outcomes and conditions can be calibrated and assigned values between 0 – 1. Frequently, calibrations are done on a 3-way or a 4-way basis. In a 3-way calibration, variables take on a value of 0, 0.5, or 1. In a 4-way calibration variables take on a value of 0, .33, .67, and 1. The fuzzy set approach is therefore an extension of the crisp set. A fuzzy set approach allows the researcher to uncover greater granularity in the data, and judge an observation to be more or less inside or outside a given configuration, rather than fully-in or fully-out as would be the case with a crisp set. For example, whereas if we used a crisp set QCA to answer our research questions, it would simply tell us whether a case was decoupled (0) or tightly-coupled (1), but by adopting a 3-way fuzzy set analysis and coding our cases as either 0 (decoupled), 0.51¹ (neither tightly coupled nor decoupled) or 1 (tightly coupled) we are able to give a more nuanced picture of which organizational and strategic configurations are more closely aligned with decoupled or tightly coupled outcomes, without artificially allocating those that are neither tightly coupled nor decoupled to either configuration (Ragin, 2008). The decision to proceed with a fuzzy or a crisp set is made by the researchers, taking account of the conceptual parameters under scrutiny, and the nature of the data (Ragin, 2008). As the method is based on an understanding of how variables configure to result in outcomes, the approach is well suited to handle complexity (Fiss, 2007; Ragin, 2008). This set theoretic approach thus assesses relational patterns by analyzing subsets of relationships. For example, in our case to understand what shapes a decoupled outcome, fs/QCA analyzes the members of the subset “Decoupled business schools” and then finds the combination of conditions that are associated with a decoupled outcome through the use

¹ As a coding of 0.5 would result in the QCA software ignoring the observation, 0.51 is used in accordance with Ragin (2008)

of Boolean algebra. Conversely, to identify what conditions are associated with a tightly coupled outcome, the members of the subset “Tightly coupled business schools” are analyzed to identify the combination of conditions that are associated with a tightly coupled outcome.

There are three steps involved in fs/QCA. The first step involves the construction of a truth table. A truth table has 2^k rows, with k indicating the number of conditions included in the analysis (Fiss, 2011). The truth table therefore lists all possible combinations of the conditions included. The rows of the truth table are then sorted on the basis of the value attributed to these conditions, with some rows containing a large number of cases, some a small number and finally some rows may contain no cases if there were no instances of a given constellation for a given row in the table. At the next step two further conditions are imposed to reduce the number of rows in the truth table further, one relates to the minimum number of cases that are required for a solution to be legitimate and the second condition relates to consistency, which is the proportion of the case in the sample that result in the outcome of interest. In the final step, a further algorithm also based on Boolean algebra is used to reduce the truth table rows to simplified combinations. The steps described here we completed using the software Fs/QCA 2.0.

Sample

The ability to cover a complete organizational sector provides a means to control for the local context (Pettigrew, 2014) and as the business schools in the UK represent a relatively small sector our aim therefore was to include as large a number of the population as possible to best represent the sector, rather than attempt purposeful sampling of a smaller number of population representatives. The population of the UK’s 122 business schools in 2011 were therefore invited

to participate. We approached all 122 deans with an e-mailed letter. Non-respondents to the initial email were emailed ten weeks later, this time with an amended letter, noting the increasing number of business schools that had now agreed to partake. The final sample of respondents was 68 deans, representing a response rate of 56%, which compares favorably with response rates achieved in prior surveys of business school leaders, where the response rates were just under 20% (Matten & Moon, 2004; Moon & Ortlitzky, 2011). To test for any differences between the initial and subsequent wave of respondents, we ran a Chi-square test for the characteristics size, munificence and prestige, which revealed that there were no statistically significant difference between early and late respondents to our e-mail inviting participants to join our research project.

In order to carry out our analysis, and to determine whether business schools were decoupling their policy from practice, a criteria for inclusion in our analytical sample, was that the business school had outwardly signaled that sustainability was central to their strategy. They had done so either through being signatories to the UN Principles of Responsible Management Education (PRME), or explicitly stating in their mission statements or strategy that sustainability was core to their approach. Of the 68 business schools in our sample, 40 had made such an outward claim. The final sample for our analysis was thus 40 business schools, representing 33% of the entire UK business school population. In the context of fs/QCA this is deemed a robust sample size as it balances breadth with depth of investigation (Ragin, 2000), and thus maintains the advantage of in-depth study provided by qualitative approaches with the ability to uncover complex combinations of factors that result in the outcome condition, traditionally associated with variable-based statistical methods (Rihoux, 2006).

Before turning to the data collection we present a table summarizing demographic characteristics of the sample.

PLEASE INSERT TABLE 1 HERE

Data collection

Data was collected by means of telephone interviews. Interviews took place over a period of five months during 2011 and were carried out by a single researcher in order to maintain consistency. The telephone interviews were conducted using a semi-structured questionnaire, which was developed, based on themes from extant research (e.g. Coopey, 2003; Matten & Moon, 2004; Springett & Kearins, 2001). The questionnaire was developed in collaboration with two other academics with knowledge of the area. The interviews were piloted before the questionnaire was reviewed and simplified to best solicit and encourage candid discussion of the topic. The interviews were conducted between March and June 2011.

To avoid common methods bias and social desirability bias, we followed the survey methodology developed by Bloom and Van Reenen (2007). To deal with common methods bias we constructed a two-part questionnaire. The initial part sought to elicit generic organizational characteristics, and this part was administered via an online survey tool. The dean either completed this, or a person appointed by the dean. The second part was based on open-ended and closed-ended questions, where we also asked for illustrative examples of the claims made. In coding the qualitative data for fs/QCA analysis, the researchers constructed a scale of 1-5 to indicate level of evidence provided for a given outcome. For example, where deans provided no concrete examples of relevant activities or initiatives designed to embed sustainability into the curriculum, the business school was given a score of 1, whereas if the dean could make reference to a number of related activities or concrete initiatives that were already in place, and which were being monitored for implementation and result, this was given a score of 5. As the researchers

rather than the interviewee decided on the score when converting the qualitative data into conditions for analysis in fs/QCA, social desirability bias was limited (Hoejmose, Grosvold, & Millington, 2013; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003)

Appreciating that deans have busy schedules and in order to increase participation (Hansen, 2007) we developed a questionnaire methodology that could be completed within 30 minutes, though in practice, where time permitted, interviews continued for up to 50 minutes. To encourage participants to disclose potentially sensitive strategic information, deans were assured of anonymity such that it would not be possible to identify an individual institution in the published work. We deemed the integration of sustainability into the curriculum a suitable context for analyzing whether business schools decoupled their practice from policy, since business schools, whilst institutions of research and learning, in the main make their income from educating students (Starkey & Tempest, 2006). The curriculum thus represented their flagship product. Curriculum design and delivery are also structures that broadly reflect whether the business school has integrated sustainability into their core offering, or whether they are offering it as an aside. To that end, we asked questions designed to understand how sustainability was incorporated into the curriculum, how sustainability teaching was designed and delivered and how it was coordinated. As each interview proceeded we pushed for illustrative examples to increase the reliability of the accounts (Eisenhardt & Graebner, 2007) and to concretely understand what was happening in practice as opposed to gleaning just organizational aspiration or strategic rhetoric. Respondents were informed that the interview would be recorded, and in all cases deans were happy to allow this record to be created. Transcripts of each interview were produced where documents ranged in length from 2225 words to 5758 words, averaging just less than 4,000 words in total.

We also collected secondary data from the Higher Education Statistics Agency (HESA), which collects and disseminates data related to publicly funded higher education institutions in the UK. We relied on HESA data for financial information on business schools. To investigate the relative role of business school prestige, we relied on rankings, in particular the Financial Times European Business Schools Ranking 2011 and the Complete Universities Guide 2011. The combination of primary and secondary data acted as a further check in common methods bias (Bloom & Van Reenen, 2007).

Operationalization

The measures included in our study were calibrated following the QCA protocol (Ragin, 2008). Calibration involves setting thresholds for membership of a particular condition involving full or partial membership. The researchers determined calibration thresholds for each of the conditions, based on knowledge rather than calculating means (Fiss, 2008; Schneider & Wagemann, 2013). Calibrations for each variable are described below. For all measures that were constructed from the interview data we adopted a triangulation approach, to minimize the impact of researcher bias. All three researchers, guided by the fs/QCA methodology, agreed on how to rate the evidence presented by the deans. Two of the researchers then worked through the data and constructed the relevant measures. The three researchers met again to compare the results of the measurement construction. In the few instances where the two researchers differed in their rating of the evidence presented, the third researcher would assess and rate the evidence by the dean, and the final rating was discussed and agreed by the three researchers collectively.

Outcome measures

Based on our desire to better understand the role of policy-practice decoupling in the context of the business school curriculum, the outcome condition was thus defined as i) whether business schools decoupled their espoused commitment to sustainability from their curriculum, ii) whether they embedded sustainability in their curriculum, and were therefore tightly coupled, or iii) whether they were neither tightly coupled nor decoupled. The outcome measures were all constructed from the interviews with business school deans. If the dean conveyed that the business school simply had a sustainability discourse, but no discernible evidence of embedding sustainability in the curriculum we deemed the business school to be decoupled. Deans who had no relevant examples to draw on or who persistently deflected our request for examples and instead discussed other matters were scored at the lowest rating of 1. Weak evidence was rated at 2 and included isolated examples of activity, often limited to trials and internal reviews, with the actual substantive activity relating to sustainability in the curriculum remaining absent or very limited. Scores of 3 involved pockets of substantive activity, such as electives in sustainability or inclusion of sustainability by some faculty in the functional disciplines, but where activities remained ad-hoc and without coordination. Scores of 4 demonstrate good progress towards integration. In this case multiple electives may be offered across a range of years and programs or where general faculty were required to include sustainability in the teaching of their functional discipline. Scores of 5 include substantial evidence, with processes in place that verify and assure inclusion. The outcome variable was then further simplified into a 3-way measure for the fs/QCA process, converting the lower scores of 1 and 2 to 0 (decoupling), the midway score of 3 to 0.51 and the higher scores of 4 and 5 to 1 (tight coupling).

Independent measures at the organizational level

Prestige - Business schools that were either listed within the Financial Times Top 100 European Business Schools or were in the upper quartile of the Complete University Guide 2011 for Business and Management Studies, were coded as prestigious, and those that did not feature in either were coded as less prestigious. Whilst we are fully aware of the shortcomings of rankings, and the extensive debate about their role and impact on business school quality (Pfeffer & Fong, 2002), we chose to operationalize prestige in this manner, because rankings are still an important signal of quality to students and contribute to building business schools' prestige (Wedlin, 2011), further rankings are very influential in defining what constitutes legitimate behaviour within business schools (Rasche, Hommel, & Cornuel, 2014), and other studies have similarly relied on rankings as an indicator of prestige (Lee & Roberts, 2015). Prestige was therefore accounted for on a crisp set basis, where business schools were either coded 1 or 0 depending on whether they were ranked in either of the two rankings.

Size - Size was measured as the number of Full Time Equivalent (FTE) academic faculty employed at the business school level. Size was coded as a four-way measure, 0-49 FTE coded as 0, 50-99 FTE as 0.33, 100-150 as 0.67 and 150+ as 1.

Financial resources - Financial resources were measured using secondary data from the Higher Education Statistics Agency (HESA). We divided the variable *total expenditure* at the business school level by the total number of students (full time equivalents) enrolled in the business school. This was done to deflate for the size of the department and provides a reasonable measure of the resources that could be invested in the teaching provisions of the school.

Financial resources were measured four-ways, where <£3,000 spend per student was coded as 0, £3,001-£5,000 was coded as 0.33, £5,001-£10,000 was coded as 0.67 and >£10,001 as 1.

Independent measures at the strategic level

Expertise – Expertise was derived from the interviews made with deans, and reflected whether the business school had staff with subject specific expertise in sustainability. Expertise was accounted for on a fuzzy set 4-way basis, where business schools with no subjected related expertise were coded as 0, those with 3 or less staff members with expertise as 0.33, 0.67 for more than three members of staff with expertise, and 1 if members of staff had both teaching and research expertise and was associated with a dedicated sustainable related research centre.

Integration strategy – Business schools were deemed to have adopted a bolt-on (BO) approach to curriculum integration if they had instituted new stand-alone units or modules that specifically addressed sustainability, whereas if sustainability had been integrated into the existing courses across the suite of modules and within units already in existence, the business school was deemed to have built-in (BI) sustainability into the curriculum. Data from the interviews with deans was coded on the basis of which policy the dean described the school as having adopted. Integration strategy was coded on a 4-way basis, with 1 and 0 accounting for whether the business school had adopted a built-in versus a bolt-on strategy respectively, and 0.67 and 0.33 to indicate partial membership of those alternatives, where business schools reported mostly built-in or mostly bolt-on, respectively. Table 2 summarises the measures used.

PLEASE INSERT TABLE 2 HERE

RESULTS OF THE FUZZY SET (fs/QCA) ANALYSIS

This section reports the results of our fs/QCA analysis. A configuration table containing the fs/QCA solutions for tight coupling and decoupling is presented in Table 3, where a total of seven configurations are shown, three that correspond to tight coupling and four that correspond to decoupling. We explain the terminology associated with the fs/QCA solutions presented before stepping through each of the seven configurations in turn. Following Bromley, Hwang and Powell (2013) we include selected quotes that illustrate the configurations. And finally, in-line with Crilly et al. (2012), we present a summary table (Table 4) of qualitative data evidencing the different responses of deans of highly prestigious and less prestigious schools with tightly coupled and decoupled outcomes.

Fs/QCA solutions

Table 3 shows the results of the fuzzy set analysis for tight coupling and decoupling allowing a comparative view of these two outcomes. Three configurations comprise the tight coupling solution (configurations 1-3) and four configurations comprise the decoupling solution (configurations 4-7). Following commonly used notation (Ragin & Fiss, 2008; Fiss, 2011; Garcia-Castro, Aguilera, & Ariño, 2013) black circles indicate the presence of a condition (“●”) and a square surrounding an “x” represents the absence of the condition (“⊠”).

PLEASE INSERT TABLE 3 HERE

The first column in Table 3 lists the five conditions under examination as well as measures for consistency and coverage. Conditions, consistency and coverage will be explained in turn. The five *conditions* are arranged according to the three organizational attributes of ‘prestige’, ‘size’ and ‘financial resources’ and the strategic attributes of ‘expertise’ and ‘built-in’.

Consistency is the degree to which membership in the configuration is a subset of membership in the outcome and ranges from 0 to 1. Whereas consistency values of 0.75 have been noted as desirable (Ragin, 2008), Wagemann and Schneider (2007) report that a consistency value of 0.70 or above is an acceptable consistency value for sample sizes of 30-60 cases. The consistency score of configurations for tight coupling (ranging from 0.73 to 0.8) and for decoupling (ranging from 0.8-0.89) this indicates that we can reasonably deem that the configurations 1-3 are consistently associated with tight coupling and configurations 4-7 are associated with decoupling. *Raw coverage* indicates the proportion of memberships in the outcome, which are explained by a given configuration and can range from 0 to 1 (Ragin, 2008) and reflects the empirical importance of the configuration (Schneider & Wagemann, 2013). In terms of our results for tight coupling the coverage values (ranging from 0.18 to 0.31) indicate the empirical strength that can be attributed to individual configurations which means that 18% of the outcome is explained by configuration 1, for example. *Unique coverage* refers to the proportion of memberships in the outcome explained only by that single configuration. Unique coverage is a measure of distinctiveness and can be thought of as separate pathway to a particular outcome. The unique coverage values shown in Table 3 (from 0.01-0.06 for tight coupling and from 0.03-0.13 for decoupling) indicate these configurations have certain similarities rather than providing different pathways to the respective outcomes.

Solution consistency is the degree to which membership in the overall solution is a subset of membership in the outcome (Ragin, 2008). For tight coupling, for example, this is the degree to which the three configurations given for tight coupling, together, are linked to tight coupling outcome. The solution consistency for tight coupling is 0.71 and for decoupling is 0.81 indicating that these solutions are consistent with the outcomes and statistically important in

explaining the outcomes. The last term, *solution coverage* refers to the proportion of the cases with the outcome that are explained by the overall solution (Ragin 2008). Solution coverage for decoupling is 0.67, which indicates that the configurations for decoupling are stronger empirically than for tight coupling with solution coverage of 0.38. However previous authors concur that 0.38 is nonetheless indicative of a concrete set of configurations that reliably yield the outcome (Garcia-Castro et al., 2013).

A prior step in the analysis of our data is the identification of necessary and sufficient conditions. Since necessary conditions are those deemed to be required for a given outcome to occur, Ragin (2008) states that such a condition can legitimately be discounted from the analysis stage, the emphasis in our analysis is therefore on those conditions that are sufficient for an outcome to occur.

Finally, the results presented here correspond to what is referred to as the *parsimonious* solution (Ragin, 2008). The parsimonious solution is the recommended representation of the results as it presents a simplified view of the results displaying only the core conditions that have the strongest empirical support as they are related to the outcome condition (Ragin, 2008).

Tight coupling configurations

Our analysis shows three sets of conditions that are associated with a tightly coupled outcome. The prestige condition is an important condition for the all the configurations. Similarly size, or more exactly an absence of size, is indicated across as important in the set of configurations 1, 2 and 3. This suggests that highly prestigious and small organizations are associated with tightly coupled outcomes.

Configuration 1 shows that in addition to prestige and size, an absence of the built-in condition, (or the presence of a bolt-on strategy), is associated with tight coupling. Configuration 1 represents organizations that emphasise sustainability by means of core and elective specialist modules in sustainability-related areas, but without embedding it throughout the entire curriculum. One dean who provided evidence of tight coupling explains the bolt-on approach as the provision of a range of required and optional modules across a variety of programmes:

“We have got a stream on sustainability in the two general Masters that we run [...] international management and the MBA, they have some combined options, and there is a sustainability option running through that...” [Dean of elite business school F]

Configuration 2 shows that the absence of high-levels of financial resources, in the presence of a prestige and absence of size, does not inhibit tight coupling. For example, one dean talked about implementing sustainability in the face of finite financial resources:

“[the university] doesn’t give you resources to do [sustainability per se] but they give you some resources, so it is up to the individual departments to use them wisely.” [Dean of elite business school C]

Configuration 3 includes the presence of subject expertise, which again in combination with prestige and absence of size, is important in explaining tight coupling. Subject expertise may naturally be associated with tight coupling, as the organization internally has deployable resources available. A dean with several faculty involved in sustainability research noted how the presence of the expertise enables the continuing inclusion of sustainability in the curriculum. They explain as follows:

“Research activity [in sustainability] is linked to the teaching so that for me creates a much more sustainable business school because you can retain people, you can say come and do your research and then use that as a content within which you teach, rather than saying do research in one area, teach in a different area, well that actually doesn’t retain staff, they don’t really like doing it.” [Dean of elite business school B]

Collectively, the configurations associated with tight coupling reflect the importance of combinations of organizational and strategic characteristics for a tightly coupled outcome. In particular, for our sample, small and prestigious organizations in combination with a bolting-on strategy, limited financial resources or expertise in sustainability are associated with tight coupling.

Decoupling configurations

Four configurations are presented in Table 1 that together explain decoupling in over two-thirds of the cases, the strength of this overall solution implies that our configurations are of empirical importance (Schneider & Wagemann, 2013) in explaining decoupling.

Configuration 4 shows that prestige and bolting-on are associated with decoupling. There are similarities with configuration 1, which shows that prestige; absence of size, and bolting-on can result in tight coupling. While apparently being at odds, these configurations are not incompatible and illustrate an advantage of fs/QCA analysis over conventional quantitative techniques in tolerating asymmetry. Thus, the presence of a condition in determining an outcome, for example tight coupling, does not necessarily imply that its presence is not also associated with decoupling, but where one such condition is associated with two different

outcomes, the relative constellation of the remaining variables will not be the same for the two outcomes. Configuration 4 indicates that bolting-on strategies are also a means by which prestigious organizations avoid substantive engagement with sustainability in the curriculum. Several deans talked of offering an elective as a means to signal activity while trialling demand for sustainability, though these electives didn't always run and the actual degree of sustainability within the curriculum may remain marginal.

Configuration 5 provides somewhat of a counter-point to configuration 4. Absence of prestige is here also associated with an absence of expertise, but a presence of a built-in approach.

Configuration 6 links the conditions of large size and absence of prestige with decoupling, reflecting the inverse scenario provided by configuration 1 for tight coupling. Together they reveal the importance of the combination of size and prestige in enabling or inhibiting substantive implementation.

Configuration 7 shows that the availability of financial resources is associated with bolting-on strategies, and a decoupled outcome. Business schools with greater financial resources are therefore found to adopt a bolting-on approach to curriculum design and adoption, but as the overall outcome is one of decoupling rather than tight coupling.

Table 4 provides illustrative quotes from our interview data, which serve to thematically reinforce the key findings from the fs/QCA results. Table 4 is organised into quadrants, and each quadrant reflects the key configurations identified in the fs/QCA results. The highly prestigious/tightly coupled quadrant provides illustrative quotes of findings from configurations 1-3, the less prestigious/tightly coupled outcome quadrant is empty since there were no

configurations identified that adhered to this path. The quadrant highly prestigious/decoupled outcomes refers to configuration 4, whilst the less prestigious/decoupled outcomes refers to configurations 5-6. The Table 4 collectively shows the supporting quotes that emerged from the interviews with the deans, and aligns with the results reflected in the fs/QCA.

PLEASE INSERT TABLE 4 HERE

DISCUSSION OF fs/QCA RESULTS AND IMPLICATIONS FOR THE LITERATURE

Our paper sought to answer the following two research questions: What combinations of organizational and strategic characteristics are associated with whether business schools tightly couple, and implement their espoused sustainability commitments in practice, or decouple, where their commitments to sustainability remain symbolic? And secondly, how does a business school's prestige, in conjunction with other characteristics influence a tightly coupled outcome versus a decoupled outcome at business schools?

Overall, our results show clear differences in the relative configurations of organizational and strategic factors that result in a tightly coupled versus a decoupled outcome. The features that are empirically important in the configurations associated with tight coupling describe smaller organizations that are prestigious, with a presence of subject expertise, less access to financial resources or that adopt a bolt-on mode to curriculum design and delivery. Configurations that relate to decoupling include less prestige and a large size, or lack of expertise with a built-in strategy. A further configuration linked to decoupling involves a presence of financial resources and a bolt-on approach to curriculum development and integration. These findings show the power of fs/QCA by uncovering the asymmetry in organizational and strategic

characteristics that result in a given outcome. Specifically we find that prestigious schools adopting bolt-on strategies feature in configurations for both tight coupling and decoupling. This implies that the bolt-on strategy may indeed serve a role in decoupling; theory predicts these structures can be used to convey a confidence of activity (Meyer & Rowan, 1977) while separating the change from core activities. However, since we also find that bolt-on strategies can provide a means for tight coupling, we uncover an interesting challenge to theory where easily decoupled structures don't necessarily result in a decoupled outcome.

The nuanced findings in relation to the role of prestige in facilitating a tightly coupled or a decoupled outcome provide an interesting counter to prevailing theoretical logic, which has often deemed decoupling to be the strategy of choice for more visible organizations seeking to maintaining ceremonial compliance (Meyer & Rowan, 1977). We however find a situation where tight coupling is associated with small, prestigious business schools. This suggests that for prestigious business schools concerns about legitimacy drives tight coupling and enactment in practice, as opposed to decoupling through the creation of a "legitimacy facade" (Maclean & Behnam, 2010:1499), where maintaining ceremonial legitimacy would come at the expense of actual engagement. In other words, the prestigious business schools that are linked with tightly coupled outcomes in our study, may respond to institutional pressures for greater sustainability engagement, and seek to maintain or build legitimacy on the basis of genuine rather than ceremonial commitment. Conversely, less prestige, in conjunction with the absence of expertise and a built-in strategy, yielded a decoupled outcome. This suggests that responding to the institutional pressure for greater societal responsibility is perceived to bring different benefits and outcomes for prestigious versus non prestigious business schools. This lends credence to Hommel and Thomas's (2014) prestige bias. They highlighted that less prestigious business

schools face different competitive challenges that their more prestigious counterparts, and by association, how they respond to these differences will be a reflection of what drives their competitiveness. Our findings thus support earlier work that implies that more prestigious business schools are less likely to decouple (Moon & Orlitzky, 2011; Evans et al., 2006), and challenges Rutherford et al.'s (2012) claim that more prestigious business schools may be better insulated from societal pressures such as that of sustainability.

While a dominant finding in our results links prestige with tight coupling, the fact we also have a configuration that describes a decoupled scenario linked with prestige and bolting-on in combination, brings an interesting nuance to our results. In many ways the scenario is in complete alignment with the original premise of Meyer and Rowan (1977). Here, business schools' existing legitimacy should be further enhanced by decoupling, as the choice of an easily decoupled structure by way of implementing sustainability aligns with Meyer and Rowan's (1977) view that this provides an effective way to meet institutional demands for ceremonial compliance, without sacrificing efficiency.

A further important finding is that a large size of business school is linked to decoupling, and this also aligns with extant theory (Meyer & Rowan, 1977), though the combination of factors that were associated with decoupled outcomes creates a more complex and nuanced picture than what has previously been shown to result in decoupling (see e.g. Clark & Newell, 2013; Rasche, Gilbert, & Schedel, 2013; Weaver et al., 1999; Westphal & Zajac, 2001). Similarly, access to financial resources was found, in conjunction with a bolt-on approach, to be linked with decoupling. In these case business schools have the means to fund the necessary changes required to deliver on their sustainability commitment, if the business schools deemed integrating sustainability as important to their legitimacy and reputation. Contrary to Rasche and

Gilbert (2015) who suggest that resource stringency could cause decoupling we found that greater financial resources were associated with decoupling. However, we can of course acknowledge that internal strategic resource constraints can, in theory, contribute to decoupling if the implementation of activities is impeded through lack of funds.

Our findings have some clear strategic implications for business schools seeking to maintain or enhance their legitimacy through their commitments and actions on sustainability. Firstly, the link between prestige and tight coupling shows that business schools wishing to build or enhance their legitimacy, would do well to follow the prestigious business schools who are tightly coupling. The evidence here of tight coupling and sustainability integration suggests business schools have more to gain from tight coupling, than creating a façade of sustainability integration (Evans et al., 2006; Moon & Orlitzky, 2011). The finding that integrating sustainability into the curriculum is not critically dependent on the availability of financial resource, but rather expertise, enhances less wealthy business schools' prospect for sustainability integration. Further, as we found that the financial resources of schools was linked to decoupled outcomes, wealthy schools in a decoupled situation could potentially remedy their decoupled state by investing in the necessary expertise to deliver on the sustainability imperative. Secondly, some deans expressed the view that bolting sustainability onto the curriculum was the less legitimate thing to do, and that the better approach was to build sustainability into the curriculum across the unit offerings. Our results suggest that it is not the bolting-on approach per se that is illegitimate since this strategy is also linked to tightly coupled outcomes. Bolting-on can thus also be considered as a valid strategy to genuinely progress sustainability implementation. Deans should therefore embrace the opportunities afforded by a bolting-on approach to providing for sustainability in the curriculum. The implication is that should their activities come under

scrutiny, legitimacy is more likely to follow from a well-executed bolt-on strategy, than a poorly executed built-in strategy.

Limitations

A boundary condition of our analysis is that our sample was a UK sample, and therefore subjected to the specifics of UK prevailing institutional pressures. The nature of the global challenge facing business schools with regards to sustainability is however not confined to the UK, but is rather a universal challenge facing all business schools, so we believe these findings are valuable for business schools irrespective of regional location.

A further feature of the UK in 2011, at the time our data was collected, was a sharp increase in students' tuition fees. The step towards greater student self-funding of the business school sector provides an arena where this shift of emphasis towards a more commercial approach is predicted to draw attention away from social issues (Moon & Orlitzky, 2011) and these competing pressures may have shaped our results in amplifying the level of decoupling observed. Nonetheless the progressing marketization in the UK context echoes global trends more generally where commercialization of management education is not confined to the UK. We therefore believe these findings are valuable for business schools irrespective of regional location. We would, however, welcome further research that sought to repeat our study in other national contexts where, for example, the relationship between prestige and tight coupling may feature differently.

Further, this study focused on the deans of business schools. Whilst deans are important and act as a boundary spanner between external stakeholders, the objectives of the school and

faculty (Hommel and Thomas, 2014), future research should also seek to elicit the views of key members of professional services staff who are engaged on a daily basis in the provision of sustainability to business school students in order, to understand what the issues and challenges are in delivering sustainability to students.

Our study suffers from some methodological limitations, which could provide fruitful avenues for research going forward. We chose to operationalize prestige as a function of business school rankings. Whilst we are confident of the robustness of our results, given the controversy surrounding rankings, and what they mean (Gioia & Corley, 2002; Louw, 2015; Pfeffer & Fong, 2002), future research would do well to identify other dimensions of business schools' reputation that contribute to prestige and explore these in greater detail. For while current rankings focus on inputs (e.g. value for money, diversity of staff and students and entry standards), future work should also emphasize external dimensions, such as consumer and competitor perceptions.

Furthermore, whilst the use of telephone interviews has been extensively relied on in research concerned with sustainability (e.g. Higgins, Milne, & Van Gramberg, 2015; Tucker & Schaltegger, 2016), education and learning (e.g. Edelman, Manolova, & Brush, 2008; Martin, Woods, & Dawkins, 2015; Yorks, Beechler, & Ciporen, 2007) and sustainability and business schools (Christensen et al., 2007), we recognize that this form of data collection has some limitations, including the inability to read facial cues, use visual props or establish the same type of rapport with the interviewee as face to face interviews and the fact that telephone interviews tend to preclude the collection of larger datasets (Robson, 2002). We therefore believe there are opportunities for research that relies on other forms of qualitative data collection, such as observational studies and for survey studies, which allows for larger sample responses than we

obtained herein. Similarly, we acknowledge that as with any data analysis method, ours have some limitations. Firstly, as with any analysis of qualitative data the researchers cannot entirely remove their own personal perspectives and interests. The triangulated approach taken to converting the dean's interview data into the measures we used in fs/QCA was designed to reduce investigator bias. However, we cannot entirely preclude the possibility that some elements of the authors' preconception have not shaped our analysis. Secondly, it has been argued that fs/QCA is overtly static in its approach and fails to account for temporal change (Hino, 2009), studies using longitudinal data analysis methods, such as panel data analysis would therefore add further nuance to our understanding of the adoption of sustainability in business schools over time. Longitudinal studies that pick up the thread where we left off in 2011, and collect primary and secondary data from 2011 onwards would also help shed important light on the recent continuing development of sustainability in business schools since. This would include the impact of PRME and the increasing emphasis placed on sustainability by accreditation bodies such as EQUIS, AMBA and AACSB.

CONCLUSION

Business schools have been criticized for insufficiently engaging with broader social and environmental pressures, and for being overly concerned with educating profit maximizing managers. Some suggest that business schools can redeem themselves by responding to institutional pressures for a more rounded educational provision in the business school curriculum (Ghosal, 2005; Schoemaker, 2008) but the extent to which they are signalling a commitment to doing so, and instead decoupling their espousal from their actual practices has

been debated (Boyle, 2004; Cornuel & Hommel, 2015). Our work responds to this debate by highlighting the conditions under which sustainability implementation, or tight coupling, in business schools' curricula is successful. Drawing on fs/QCA analysis of deans of business schools, we found that there is no single explanation for sustainability implementation, instead we find a variety of combinations of characteristics which relate to tightly coupled or decoupled organizational outcomes. Our results showed that prestige was importantly associated with tight coupling, whilst large organizational size was associated with decoupling. Access to financial resources, however was not a decisive factor in tight coupling.

Our analysis of strategic characteristics questions assumptions about how different organizational arrangements are associated with substantive, tightly coupled, activities. We found that the structural choice between bolt-on or built-in strategies did not determine decoupling, contrary to theoretical arguments about easily decoupled structures (Meyer & Rowan, 1977; Weaver et al., 1999). Further, we identified that sustainability expertise had an association with tight coupling, implying that if a business school genuinely intends to implement its sustainability commitment, investing in faculty with the required knowledge or encouraging sustainability as a research theme, provides a stable basis from which substantive activities follow. These two strategic features are potentially more readily adjusted by business schools than the organizational characteristics described above, and thus yield relevant managerial implications for business schools.

Our study focused exclusively on business schools that signalled a commitment to sustainability either through their mission statement or their membership of PRME. In doing so these schools stood to gain legitimacy from improving their standing in the eyes of wider society which increasingly expects business schools to lead in matters of sustainability (Wilson &

McKiernan, 2012). However, those business schools that in practice failed to substantively implement corresponding activities are subject to legitimacy risks, if the lack of operational engagement is later exposed. Therefore implementing sustainability commitments in practice is increasingly relevant as a means for business schools to maintain and build their legitimacy.

Finally we suggest two substantive areas, which could form the basis of future research. Firstly, we need to know more about how the macro and micro levels of analysis interact in the organisation and in business schools. While institutional theory provides a framework for the analysis of decoupling at the macro and increasingly the micro level (Powell and Colyvas, 2008) theoretical development could usefully focus on the intersection and interaction of the macro and micro levels of analysis. Stronger conceptualisation of the way in which decoupled/coupled policy emerges from this interplay would inform future empirical work in this area, and add further dynamism to the theoretical framing of policy-practice research. Second, while the processes and policies, which drive sustainable education, are increasingly well understood we need more research into the impact of these policies on the attitudes of managers and their behaviour in the workplace. A re-focussing on outputs rather than inputs, and on the effectiveness of responsible business education is therefore warranted.

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TABLE 1. – Contextual factors relating to business schools in sample

<i>Elite</i>	<i>Size</i> <i>Measure: Number of (full-time equivalent) academic faculty</i>	<i>Financial resources</i> <i>Measure: Total expenditure per (full-time equivalent) student, £</i>
Mean	99	10,892
Standard deviation	65	14,394
<i>Non-elite</i>	<i>Size</i> <i>Measure: Number of (full-time equivalent) academic faculty</i>	<i>Financial resources</i> <i>Measure: Total expenditure per (full-time equivalent) student, £</i>
Mean	113	10,296
Standard deviation	88	4,534

TABLE 2. Summary table of variable measures

Outcome measures	<i>Tight coupling</i>	Strong evidence of implementation of sustainability initiatives	Measures based on interview data
	<i>Neither tight coupling nor decoupling</i>	Some evidence of implementation of sustainability initiatives	
	<i>Decoupling</i>	Little or no evidence of implementation of sustainability initiatives	
Independent measures at organizational level	<i>Prestige</i>	Business school listed in Financial Times Top 100 European Business Schools or ranked in upper quartile of the Complete University Guide for business and management studies	Measure based on secondary data
	<i>Size</i>	Number of Full Time Equivalent academic faculty	Measure based on secondary data
	<i>Financial Resources</i>	Total expenditure at business school level divided by number of students (Full Time Equivalent)	Measure based on secondary data
Independent measures at strategic	<i>Expertise</i>	Number of staff with sustainability	Measure based on

level		subject expertise	interview data
	<i>Integration strategy</i>	Bolt-on – provision of stand-alone sustainability units	Measure based on interview data
		Built-in – Sustainability integrated across existing curriculum	

TABLE 3.

Configurations for tight coupling and decoupling*

Conditions	Tight coupling solutions			Decoupling solutions			
	1	2	3	4	5	6	7
<i>Organizational</i>							
Prestige	●	●	●	●	☒	☒	
Size	☒	☒	☒			●	
Financial resources		☒					●
<i>Strategic</i>							
Expertise			●		☒		
Built-in	☒			☒	●		☒
Consistency	0.73	0.80	0.78	0.80	0.82	0.87	0.89
Raw coverage	0.18	0.25	0.31	0.17	0.31	0.37	0.33
Unique coverage	0.01	0.03	0.06	0.03	0.07	0.13	0.03
<i>Solution consistency</i>	0.71					0.81	
<i>Solution coverage</i>	0.38					0.67	

*Black circles indicate the presence of a core condition, and a square box containing an “x” indicates its absence. Blank spaces indicate non-binding conditions.

TABLE 4. Qualitative evidence

Prestige	Tightly coupled outcomes	Decoupled outcomes
Highly prestigious	<p>“There is a [CSR and sustainability module] in the mainstream undergraduate programme and other students can take it as an elective...For our full time MBAs we do an introduction to CSR and sustainability issues and incorporate a guest speaker who talks largely about sustainability and students do their very first formative piece of assessment around that area...on our economics programmes we have got a module on environmental economics, [and so on]....” (Dean of elite business school E)</p> <p>“Within the school we have...option courses on sustainable development type topics, but also we had that broader teaching experience from outside of the school but across the university that was linked into the school” (Dean of elite business school A)</p>	<p>“If I am honest with you, the kind of sustainability agenda is not as deeply embedded within our programmes as we would like it to be and we are in the process of reviewing the undergraduate programme at the moment...where it will feature more prominently” (Dean of elite business school D)</p> <p>“I think there are one or two modules running which are specific kind of modules, I don’t have the titles...” (Dean of elite business school J)</p>
Less prestigious		<p>“It is...there across the other programmes as well but maybe not in terms of dedicated modules. It is more dispersed amongst the content if you like” (Dean of non-elite business school 12)</p> <p>“Sustainability in the curriculum I think that comes through more from again the interests of staff and their research and how that impacts on the curriculum” (Dean of non-elite business school 1)</p> <p>“We have a framework within the learning and teaching strategy where we say that the students should be increasingly environmentally sustainable and aware.” (Dean of non-elite business school 2)</p> <p>“We have got a major curriculum review going on this year and next year across all undergraduate programmes and we are weaving sustainability into the various programmes ” (Dean of non-elite business school 5)</p> <p>“We do talk about it but we don’t talk about it as far as I can tell an awful lot. So that is definitely an area where we could do more.” (Dean of non-elite business school 14)</p>

		<p>“Well yes we are not doing it at the moment” (Dean of non-elite business school 11)</p> <p>“Um, it is a work in progress” (Dean of non-elite business school 7)</p> <p>“I’m not keen just to have bolt on modules that students opt in or out of, so...we are looking at where [in the curriculum it] is actually designed into some of our more general module” (Dean of non-elite business school 4)</p>
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