Sustainable Procurement in Australian and UK Universities

First Author: Suzanne Young
Department: Department of Management and Marketing
University: La Trobe University
City: Melbourne
Country: Australia
E-mail: s.h.young@latrobe.edu.au

Second Author: Swati Nagpal
Department: Department of Management and Marketing
University: La Trobe University
City: Melbourne
Country: Australia

Second Author: Carol A Adams
Department: Durham University Business School
University: Durham University
City: Durham
Country: United Kingdom

Sustainable Procurement in Australian and UK Universities

ABSTRACT

Sustainable procurement is a growing phenomenon and a key component of organizations' Corporate Responsibility and Sustainability strategy. The focus of this paper is sustainable procurement (SP) at universities in Australia and the UK. The study identifies a dearth of academic research into SP at universities and presents actionable insights gained from practitioners. Results from qualitative data collected from Australian and UK universities highlight the continued dominance of price in procurement decisions and the practical challenges faced in changing the status quo both internal and external to the university. Implications for theory, research and policy are also presented.

KEYWORDS: Sustainable procurement; higher education; universities; public sector governance; social responsibility; environmental responsibility

Sustainable procurement is a growing phenomenon driven by the increasing involvement of organizations in Corporate Responsibility and Sustainability programs. Sustainable procurement in its simplest form can be thought of as environmentally and socially responsible purchasing (Brammer and Walker 2011; Walker and Phillips 2006). To be regarded as sustainable, the purchasing practices typically evaluate the supply chain and effects in regards to five aspects: environment, diversity, human rights, philanthropy, and safety (Brammer and Walker 2011, 422).

In the private sector there has been increasing recognition of the risks associated with sustainability issues in the supply chain (ACCSI 2013; Econsense 2013; Harms, Hansen and

Schaltegger 2013) following publicized disasters and organized campaigns focussing on issues of worker safety, pay and conditions and human rights issues at supplier factories. This has led to increasing demands for transparency regarding sustainability issues in the supply chain, something which the Global Reporting Initiative (GRI) responded to in the development of the G4 Sustainability Reporting Guidelines (GRI 2013). In universities the lack of private sector investors and their status as service providers has meant that to date supply chain issues however have not been regarded as a risk factor for the sector. Indeed, sustainability as a whole has not been regarded as something on which universities should be accountable or seen as adding value to them and their stakeholders (Adams 2013).

The nature of the public sector adds a layer of complexity due to the legislative and regulatory environment and the nature of its service delivery based on the public good. In particular the university sector is both a key public service provider and consumer with expertise in teaching and research. The production and consumption of goods and services directly and indirectly impact many of the social and environmental concerns at universities. These include, *inter alia*, changes to the climate, resource depletion, ethical sourcing, local sourcing and atmospheric and water toxicity (Brammer and Walker 2011; Walker, Di Sisto and McBain 2008; Walton and Galea 2005).

However, a review of the literature shows very little research has been conducted regarding sustainable procurement (SP) in the public sector and in particular the university sector. Furthermore, Bull, Meida, and Holland (2011) highlight the dearth of academic literature that has sought to understand the SP agenda from the point of view of the practitioner. This study hence is situated in the university sector of Australia and United Kingdom and focuses on the perceptions of university procurement practitioners.

DEFINING SUSTAINABLE PROCUREMENT

It is evident that no single universal definition of SP exists (Brammer and Walker 2011; CIPS 2009; Lutz 2009; Thomson and Jackson 2007). Moreover, a number of sources (e.g. Lukman and Glavič 2007; Lutz 2009; Meehan and Bryde 2011) have stressed the need for sustainable procurement goals to be aligned with the broader sustainable development agenda, which the United Nations (UN) World Commission on Environment and Development defines as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs.' (Brundtland 1987 cited in APCC 2007, 5).

In recognising the above challenges to defining SP, a compelling definition is offered by the UK Sustainable Procurement Taskforce in the report *Procuring the Future.* The taskforce formally defines sustainable procurement as:

> [. . .] a process whereby organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organization, but also to society and the economy, whilst minimising damage to the environment (DEFRA 2006, 10).

Importantly the Australian Procurement and Construction Council (APCC) in their *Australian and New Zealand Government Framework for Sustainable Procurement* (APCC 2007) have adapted this definition for the development of a set of four guiding principles and considerations for procurement practitioners being:

- Strategies to avoid unnecessary consumption and manage demand;
- Minimising environmental impacts of the goods and services over the whole of life of the goods and services;
- Suppliers' socially responsible practices including compliance with legislative obligations to employees; and

- Value for money over the whole-of-life of the goods and services, rather than just initial cost. (APCC 2007, 5).

How SP is operationalized in the University sector hence will be explored in these two national contexts, namely the UK and Australia.

Procurement Function

Ward (2008, 2) states that procurement is often made up of the following inter-related functions:

- Purchasing – buying materials and equipment;
- Expediting – ensuring that goods and services are ready when needed;
- Inspection – ensuring that goods meet the desired quality and specifications;
- Shipping/Traffic/Transport – ensuring that material is transported from the manufacturers' or supplies works to the project location; and
- Contracts – which can be incorporated into the other functions or as a standalone.

In addition to performing these functions, the procurement function in the public sector and indeed universities, enters into various upstream and downstream relationships with suppliers and customers. However, as Arlbjørn and Freytag (2012) point out, the critical difference between the private and public sector's approach to procurement lies in their differing objectives. They argue that the objectives and scope of the public sector, and therefore public procurement is accountable not only to making a financial profit but also includes objectives such as providing education, research excellence, community development and other public goods to a large and often diverse customer base (Arlbjørn and Freytag 2012; Currie and Vidovich 2000).

Quayle and Quayle (2000) conducted a study of procurement practices in higher education and further education institutions in the UK. The point of departure for their study was the recognition of the importance of procurement's relationship with other functions in their respective institutions; the importance of supplier selection and relationship management; and the importance assigned to procurement as a value-adding activity. The results demonstrated a need for whole life-cycle management, training of procurement staff, greater awareness and priority given to the purchasing function, more accurate data, benchmarking and the value of purchasing consortia (Quayle and Quayle 2000).

A study by Glock and Broens (2011) on how the purchasing function is organized across 65 German universities emphasized the importance of the centralization/decentralization debate in procurement at Universities. They hypothesized that universities, as public institutions, would be faced with relatively greater scrutiny in the future and therefore need to have a more formalized and centralized procurement function to assist in greater accountability and transparency. Their results, however, demonstrated that there were a number of contextual factors at play in determining the level of centralization, including: the size of the university; purchasing volume; the nature of the purchases; and the experience and education of the chief purchasing officer.

Both studies indicated that many higher education institutions continue to attach less importance to the procurement function compared to their private sector counterparts, which structurally and culturally place more value on the procurement function (Glock and Broens 2011; Quayle and Quayle 2000).

The higher education sector in Australia and the UK

The sweeping changes in the Australian higher education sector over the last few years have included: more competitive business models; a new national quality standards and regulatory agency - the Tertiary Education Quality and Standards Agency (TEQSA); and accountability for research quality through the 2012 Excellence in Research in Australia (ERA) framework (Schwartz 2011; Sheehy 2010; Sheil 2010). These key drivers have led to intense competition among universities, which aim to attract a greater number of domestic and international students through changes at the course, pedagogy and institutional levels with the impetus on lean processes, innovation and greater efficiency (Schwartz 2011; Shah, Lewis and Fitzgerald, 2011; Young and Nagpal 2013).

Compounding these shifts is the fact that universities now have to do more with less (Bishop 2002; Shah, Lewis and Fitzgerald, 2011). As evidence of these pressures, Worthington and Higgs (2011, 388) outline several problems facing Australian universities, starting with the fact that 'Over the period 1995-2005, total national expenditure on tertiary institutions grew more slowly (34%) than GDP (42%) and significantly less than the OECD average (58%). The clear reference is that Australian universities are substantially under-resourced'.

Similarly, since the 1980's UK higher education institutions have taken an interest in maximising resources, which has led to a number of procurement appointments aimed at developing a level of professionalism within the procurement function (Barr, 2012; Quayle and Quayle, 2000). The role of procurement in universities is central to acquiring the best products and services to meet the changing demands for more sophisticated and modern facilities and equipment; and more productive and talented staff, within tighter budgetary constraints (Glock and Broens 2011).

Moreover, In the UK there is now a legal requirement to integrate social considerations into public procurement based on an EU directive on public spending (European Commission 2011). Accordingly, UK universities are required to report on contracts awarded based on their environmental, social and general sustainability credentials. Similarly in Australia institutional drivers are apparent such as the APCC and the increasing focus more widely on Corporate Responsibility and Sustainability Reporting (Young and Marais 2012).

National policy context

In this vein, Brammer and Walker (2011) suggest that the impetus for sustainable procurement stems directly from the set of national policies that drive it. As was discussed earlier, in the UK guidance comes from European directives as well as public sector regulation. In the Australian context, in 2007, the APCC, in collaboration with the New Zealand government, developed the Australian and New Zealand Government Framework for Sustainable Procurement. This is an overarching framework, designed to '…provide a set of national principles to assist the governments of State, Territory and Commonwealth jurisdictions and New Zealand to integrate the principles of sustainability into the procurement of goods, services and construction' (APCC 2007, 2). Based on this, a key assumption in this paper is that SP does indeed feature within the procurement decision-making considerations in Australian and UK universities. However, the extent to which universities respond to these institutional drivers, and how they respond is of interest.

Martin (2009) criticizes the Australian Commonwealth and State governments' approach to sustainable procurement based on the fact that the APCC principles, and State Government policies do not clearly provide guidance to procurement practitioners on how to

create the trade-off between sustainable credentials and price, where price continues to dominate. In addition, he argues that improvements need to be made on monitoring and reporting criteria to ensure greater sustainability embeddedness at all levels of government. Martin (2009) also cites a lack of consistency in approach in these monitoring and reporting criteria, which makes benchmarking and identification of best practice elusive (Martin 2009). Indeed Adams, Muir and Hoque (2014) in a survey of Australian government departments found that sustainability, environmental or social responsibility measures were the least used performance measures, and those utilised were mainly measures of employee diversity and non-financial economic aspects.

Neo-Institutional theory focuses on the process by which structures, including schemes, rules and norms in the institutional environment become guidelines for shaping social and economic behaviour (DiMaggio and Powell 1983). Importantly, according to institutional theorists 'conformity to such norms and what is acceptable economic behaviour within society is what ultimately contributes to success' (Oliver 1997, p699). Based on this 'conformist' argument, and Brammer and Walker's (2011) assertion that the national policy environment plays a role in shaping decisions about sustainable procurement within public organizations, the apparent differences in the policy environment in Australia and the UK as described above are of key interest in this research.

Further, there is significant diversity in the scope of stakeholders involved in decisions about procurement in universities including, students, suppliers, regulators, university staff (customers), the wider community/society, and university leadership (Glock and Broens 2011). It therefore becomes important to understand the extent to which, and how procurement decisions account for the different needs of these stakeholders (Bryson 2004).

Hence the research questions that guide this research are:

- What are the drivers of SP in universities in Australia and the UK?
- What do universities prioritize in their SP practices?

METHOD

As highlighted earlier, because the research into sustainable procurement at universities is not yet rich enough to provide a robust conceptual framework for investigating the topic, an exploratory qualitative study was undertaken (Creswell, 2008). The approach consisted of two focus groups held in Australia in April and June 2012, five interviews in the UK in May 2012, and five interviews in Australia in July 2014. Of the 43 Australian universities, and 109 UK universities, the sample for this study included five Australian universities and three UK universities for the purpose of an in-depth, comparative illustration in line with the interpretivist nature of the study (Ragin, 1987).

The choice to focus this research on universities in these two countries is based on the Australian and UK higher education systems sharing common roots from historical, funding and cultural perspectives. They also face similar challenges relating to private vs. public funding, and the allocation of resources, as described earlier (Barr, 1998).

A purposive, snowball-sampling approach was taken to draw insights from individuals with working knowledge of procurement in universities (Patton, 1990). The advantage of this sampling approach is that it allowed the researchers access to rich sources of information, in a timely and resource efficient manner (Patton, 1990). The two focus groups were made up of a number of stakeholders in the procurement process at one university in Australia, with representation from the office of the Vice-Chancellor for Sustainability, the finance

department and university infrastructure and operations. The respondents were probed on issues relating to: their perceptions of the current policy and regulatory context shaping procurement at universities; internal and external drivers for SP; current procurement policies and practice; and opportunities and challenges in implementing SP. The in-depth interviews in the UK were held with five individuals representing various procurement roles in three universities and one consultancy; four procurement professionals (2 procurement, 1 contracts and 1 purchasing manager) and one strategic procurement advisor to universities and purchasing consortia. The in-depth interviews in Australia were held with five procurement professionals. Table 1 presents an overview of the sample for this study

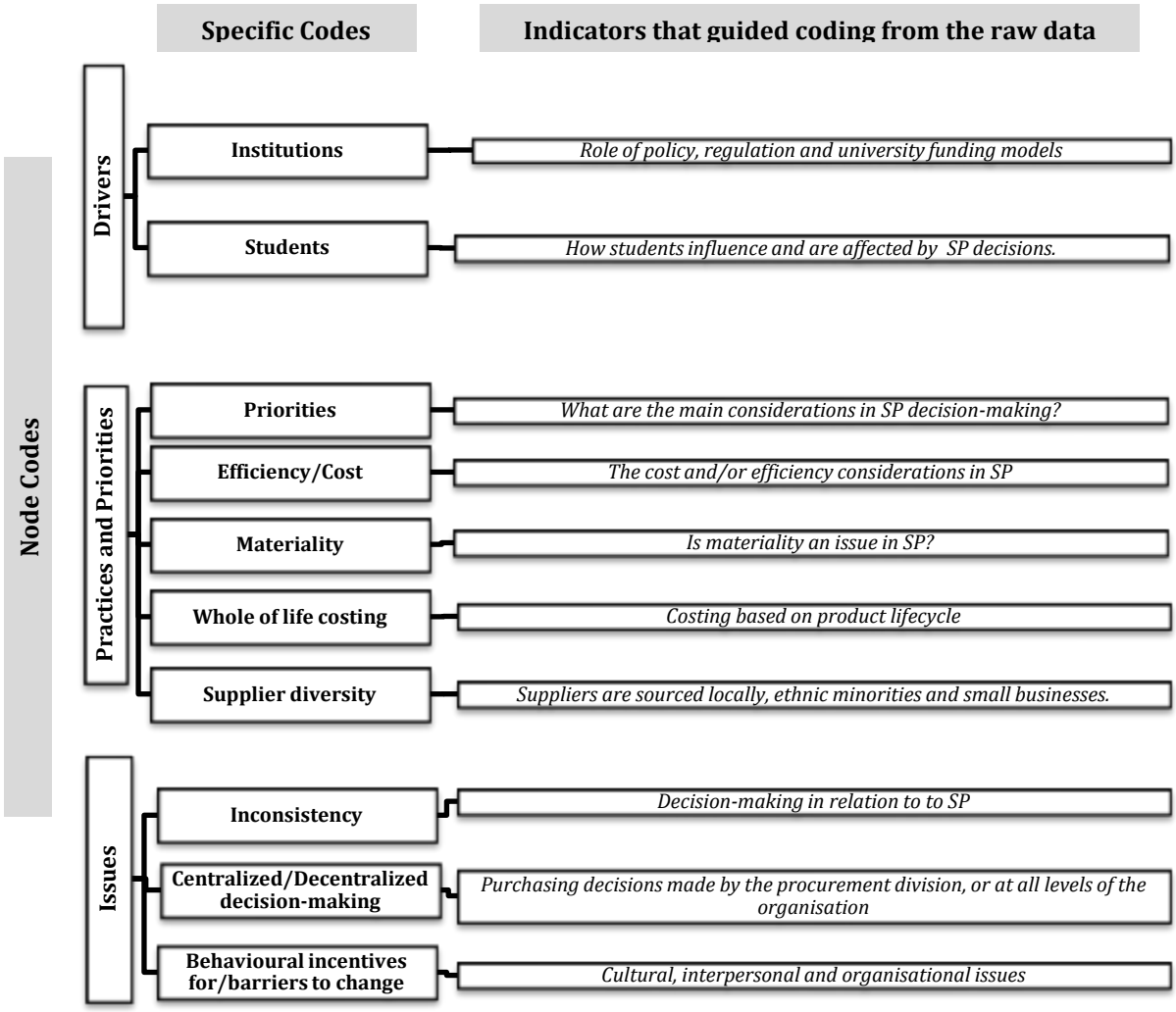
Table 1: Sample overview of focus groups and in-depth interviews

Method	**Location and date**	**Job Description/Title**	**Respondent Code**
Focus Groups	Australia (May 2012)	Vice-Chancellor for Sustainability	AU1
		Sustainability officer 1	AU2
		Finance Manager	AU3
		Purchasing and Assets Manager	AU4
	Australia (May 2012)	Head of University infrastructure and operations	AU5
		Sustainability officer 2	AU6
		Procurement manager	AU7
Interviews	Australia (July 2014)	AU University 1 Procurement Manager	AU8
		AU University 2 Procurement Manager	AU9
		AU University 3 Procurement Manager	AU10
		AU University 4 Procurement Manager	AU11
		AU University 5 Procurement Manager	AU12
	UK (June 2012)	UK University 1 Procurement Manager	UK1
		UK University 2 Procurement Manager	UK2
		UK University 3 Contracts Manager	UK3
		UK University 1 Purchasing Manager	UK4
		UK Strategic Procurement Advisor	UK5

The focus groups and in-depth interview transcripts were coded based on the two research questions, with three broad, or 'node' codes assigned, namely 'Drivers', 'Practices and Priorities', and 'Issues'. Through an inductive-deductive coding approach (Miles and

Huberman 1994), the three node codes were narrowed down into a set of specific codes as they relate to the respective node codes. These broad codes came from the literature whereas the specific codes emerged from the data. The coding scheme, and the indicators used to guide the guide the coding from the raw data is summarized in Figure 1.

Figure 1: Thematic coding scheme used



FINDINGS

Drivers

Institutions

Institutional drivers were generally highlighted as important in the UK interviews and included public sector regulation and guidelines as well as funding provisions, thereby highlighting the lack of agency in decision making at the local university level.

> University funding is changing now so the students are paying large fees direct but we're still considered a public body, so we have to comply with the public sector rules and regulations, some is with legislation and some is with best/good practice so we're obliged to do it. So it's all based on competitive quotations for everything we buy in effect (UK4).

The institutional environment is also placing coercive pressures to change purchasing behaviour. UK1 stated:

> The Funding Research Council in the UK have recently changed their conditions of funding and need to have evidence that we have considered the equipment that we already have or a neighbouring university already has before bidding for a new piece of equipment.

Even though there was an awareness of the national and state-level directives in relation to SP, it is evident that there is lack of clarity in terms of how that is operationalized. The UK Higher Education sector spends over £9 billion a year on non-pay costs and the Sustainable Procurement Centre for Excellence claims to have made £5 million in efficiency savings in one year through a range of initiatives including training of university procurement officers, development of measuring and monitoring tools and provision of resources (McFarlane 2013).

Students

Another key area of difference between the UK and Australian environment relates to the role of students in shaping university purchasing decisions. All of the UK interviews reported the push coming from students and student councils:

> … We were one of the first Fair Trade universities in the country and again that was driven more by the student body to be truthful than by staff (UK2).

> I think that one of the biggest drivers would be the student experience and the student expectation of how the organization should be behaving. I think that's really a positive, and it's a force for good in the world I think (UK5).

One Australian University spoke of students as drivers but this was also linked with their sustainability strategy and key Director who was spoken of as a change agent for the whole university.

> We listen to our students and a lot of our students now make those decisions based on – you know, where they want to go to school, I mean, if you can promote yourself as a green campus and you're doing the right thing sociably, you're going to get those students coming in and choosing us over another university. So, I think that's one factor and the other factor is basically [name removed] has been a massive driver for our campus. That was an initiative she took on straight away with that role and really has, I guess, educated a lot of people along the way, just to be a bit more aware of it (AU4)

Practices and priorities

Priorities

In both countries, the key areas of discussion for SP related to waste, stationery, building maintenance, IT equipment (especially printers), food (fair trade and reduced use of bottled

water) and transport (air travel, bicycle use, and fleet management). For instance in Australia one interviewee spoke of the University direction focusing on 'reduce, recycle and re-use' (AU5), whilst another (AU7) highlighted some of the limitations of SP in terms of priority given to operational issues:

> So, we've done a lot of work around, you know, paper and what's being used on campus, to make sure we're certified and we're reported on that every year. We were one of the first to get fair trade coffee on board across the board. So, there's been a lot of movement in the last five years from what I've seen. A lot of room to improve, but for the main contracts and the preferred suppliers that we have, we've done quite a lot of work to get that up and running (AU5).

> We've got a whole thing on sustainable, environmental sustainability but it really just comes to environment, energy waste, gas emissions, water, and we don't have enough on corporate social responsibility … such as labour practices, equity, social inclusion, and indigenous people. (AU7)

All of the universities spoke of more work being needed in the foreseeable future on travel with UK2 arguing:

> Travel is probably one where we've got quite reasonably good controls compared to many universities on approval for travel but I think that we could make some further improvements and link it much more in to CO_2 reporting.

Even so the environmental side of sustainability is regarded as a much easier area to incorporate than the social side.

> They're much easier, the environmental issues, the social issues which are a lot more difficult. It's often, environmental issues, I think that there are often some that cost extra but many of those will actually reduce costs. With social issues, in certain aspects, yeah, we can say that we can reduce costs if we expand our databases and have more people tendering then that should

> reduce pricing but it's hard to evidence that having local companies and SMEs will reduce our costs (UK1).

And in Australia typically environmental considerations have been at the forefront of changes made, such as in relation to motor vehicles:

> We've got a sustainable fleet strategy that they're implementing here. And that's to reduce carbon emission by ten percent, and with that we reduce our fleet size, we reduce our operating costs as well. So there's benefits across the board (AU10).

Efficiency/Price

Moreover, the pressure to be more efficient was also raised as both a driver and practice:

> The Bradley Review has put a lot of pressure on Australian Universities to be more efficient, we have moved to a student demand-led model which means we have to be more competitive, which means keeping costs down (AU1).

In a number of cases interviewees spoke of the tension between higher costs and sustainability, both in terms of the limited supply of sustainable goods and services, and the higher short-term costs.

> Firstly, it is hard to come by a lot of 'green' products and services, there aren't that many suppliers out there, and so the cost is higher. Also, established suppliers have managed to bring their costs down over time, and it is harder for the smaller guys to keep innovating and being more sustainable. (UK2)

> I guess the acceptance that the initial cost is dearer to substitute for sustainable products, but the long term total cost of ownership does – it's more, I guess, competitive and more cost beneficial. As an organization, it takes time to understand that, and continually educate (AU7).

For instance in the use of green energy and the use of recycled paper:

> I think that we still accept that recycled paper costs more but we feel that it's important because it sets an image. The staff will pick up a piece of paper and see that it's recycled, there is a value to that. I've got to be honest with you, I have to argue that I say there is a value to sustainability (UK1).

> Price is still king in this environment. I think it will take time for things to change, we are large purchasers and although we buy paper with recycled content or whatever, we are not their only consumers. The private and public sectors need to work together to either change the perception of price, or buy in enough quantities to force suppliers to change (AU3).

Materiality

In some cases government purchasing regulation does not allow for the inclusion of sustainability decision criteria, which lowers the impact, and hence materiality of sustainable procurement decisions. For instance one university manager provided this example:

> A typical example, is stationery. We couldn't put evaluation criteria on a supplier's environmental policy. If we asked them, "Do you use recycled paper?", "Do you recycle your waste?" We couldn't score that because it's not material to what they're [supplier] delivering. We can score them potentially on the environmental products that they supply, although again we need to be a little bit careful there…. We're certainly not allowed to use the criteria when it's not material (UK3).

Whole of life cost

All interviewees in the UK spoke of whole of life costing, although more work was also seen as needing to occur:

> A number of years is the true whole life cost of an individual piece of equipment and I think that we're pretty good at what it costs, what the maintenance is, what the consumable costs are, but if

> we were to look at the energy consumption, I don't think that's an area that has really been addressed yet (UK1).

> I believe that the best thing the procurement profession could do towards sustainability is try and move us away from always looking at the price, to try and look at the cost. What I'm trying to get across to colleagues is that we should be looking at the whole life costs, and that I think is the single most valuable thing we can do towards a genuinely beneficial environmentally sustainable future. Forever, we seem to be focusing on the pricing of stuff (UK2).

With many referring in particular to issues of printer and computer purchasing in both the UK and Australia.

> … it's a really good illustration of the whole life costing of the accounting bit because printers are dirt cheap but the consumables of course is where they make their money, the toner cartridge, the ink cartridge or whatever it is and so the whole life cost of these is horrendous if you work out the cost to print so many pages as opposed to the network device… (UK2).

> The lifecycle cost is what you're taking into a factor, not just that one off cost saving. We need to look at three years' time, if you're removing that device or how are you destroying it, they're the factors that we're trying to embed in people. … We really looked at lifecycle costs and how we could bring them under a lease and make sure they get changed every three years and then destroyed of appropriately, rather than just someone throwing it out or taking it apart and doing whatever they want (AU5).

Diversity of Suppliers

A number of social procurement practices were spoken of in terms of diversity of suppliers: local sourcing, ethnic minorities and small business suppliers. In both the UK and in Australia local employment was spoken of either as something that is now a focus or will be in the foreseeable future, especially as it fits with the reputation of the universities in their local areas and can deliver potential risks if not considered:

> One of the things that we're quite proud of doing here is in building contracts is that we're asking people to guarantee a number of apprenticeships and training for people as part of the building contract (UK1).

> How we encourage smaller organizations, or more ethnic organizations to engage with the university and I don't think that we've been particularly good at that as a university. …. It is assessed as part of the award criteria as I said previously, but I think that there is probably more work to be done there. We're currently writing something for our website saying that, or advising people how they can engage with the university.' (UK2).

> I view that as potentially an increased risk is some key categories and also quite a few lost benefits and opportunities across the university. To provide maybe an example … that we're looking at right now is in contingent labour which would include temporary labour via agencies … Our proposals in the past have not been fully endorsed and we feel the university, as many other universities and institutions, has a high risk profile in this regard and quite a lot of lost opportunities in terms of cost (AU11).

From the UK experience, a difficulty for smaller organizations in this regard is their lack of indemnity insurance which in the past has precluded them from tendering. To alleviate such barriers, government and universities have recently run workshops for these organizations.

Issues

Inconsistency

Inconsistency in decision-making, purchasing policy and weighting of sustainability criteria were all spoken of as issues.

> Take our travel costs for example, we are encouraged to travel less to reduce our emissions but at the moment, this is not reflected in our departmental budgets and there is no way to measure any of it. Also, each department places a different weighting on their travel costs, does that mean that they should be more or less accountable for their emissions at a departmental level? (AU5).

UK5 argued that the concept of value for money could be tied in to sustainability by assigning a weighting of sustainability credentials in percentage terms during the tender process by consortia.

> From the ones that I've worked on so far for the Purchasing Consortia, I'd say on average, 15% is awarded to sustainability…Which I don't think is a bad percentage, when you consider what the rest of the tender is made up of and price will always be up there and I don't think that it's appropriate to award 30%, 40%, 50% to sustainability, particularly in some commodity areas where it is still a very emerging kind of concept to some markets and it's about starting small and progressing.

Centralized/decentralized decision-making

Another issue was spoken of in relation to the devolved nature of purchasing and decision-making in universities.

> Not all products and services are purchased centrally. While a central procurement policy exists, which outlines the processes and procedures for acquiring goods and services, the vast majority of purchasing still occurs at the faculty, school and departmental level. Therefore, assigning accountability becomes a complex task (AU3).

> I think for some institutions, it's….it's difficult to address sustainability in procurement. It may well be that they've only got one or two members of staff in their procurement team. Another difficulty is devolved purchasing, … everybody in faculties and departments actually purchase themselves so without having a centralized procurement team or unit, it is very difficult to standardize and pull centrally together your policy… (UK5).

> It's a devolved environment, everyone's buying, and our focus is always on expenditure and where we feel we can make a difference. And what we find is that there are certain people that are really champions and … very focused on sustainability and environment and then there are others who couldn't care less to be honest where ordering goes (UK1).

Similar considerations were spoken of in Australia by a number of interviewees with examples of decentralized budgets and costing models hindering SP. Specific examples were provided in relation to IT research expenditure and travel. In such cases the academics typically choose the lowest cost rather than the more sustainable product. In such cases challenging academic autonomy was seen to be problematic. Linked to this is the fact that some of these capital purchases are not offered with a 'sustainable' choice by the market. An example:

> But the biggest area for us in any of those categories is the fact that those one off purchases are the ones that we can't get to. Big ticket items which researchers want, they want it now and they need it for their research, you really can't get in there and have those says and really commit to getting something sustainable. … … a lot of our one off purchases are specific equipment which is only one manufacturer throughout the world, so we get a lot of pieces of equipment from overseas and it's a monopoly. … (AU4).

Furthermore, the lack of cost apportionment has held back the SP strategy. Inability to apportion overheads such as energy has meant that whole of life costing has not been initiated to the full extent.

Behavioural Incentives for/Barriers to change

Although not asked specifically all interviewees spoke extensively of the change process in terms of incentives to enhance SP practices as well as barriers to its implementation and progress. Hence like any other new practice the introduction and progress for SP requires a more formalized change process.

> I think the barrier for me is support. It can feel very lonely at times. I think that this university has embraced it. We have got dedicated staff involved who will talk to us and expose us to best practice but I think that getting that embedded into all of the users in such a large organization

> and getting individuals to their change behavioural patterns. The printers will be a good example of that, in trying to take printers off people's desks (UK2).

> So again you have to convince people of the business case and explain it, and then Professor So and So will say if I have to walk more than three metres, then it's wasting my time so you have to engage people and again we find that the student population are delighted and really keen and the staff are being coerced gradually down this road (UK1)

Similarly, in Australia, the lack of buy-in to sustainability from senior university staff was referred to whether that be head of procurement, or senior managers such as finance directors.

> I'd say it's a common barrier to sustainable procurement and it's something that we help to address as well. We provide training courses, workshops where we look at strategies to engage senior managers and the different ways of doing it, so for example, if it was your finance director that you want to engage with, and get buy-in from and we all know that finance directors focus on the bottom line and like to see black and white figures, so it important to go to them with a whole life costing, for example so that they can see the benefits in terms of monetary value (AU1).

> There are initiatives but they are quite often token initiatives. And without that lead from a senior level it's quite difficult for me to see how that would change as well informed as people are it's difficult to see that turn into more widespread initiatives. I mean there are good things that happen moving back to the procurement space wherever possible in our tender criteria we include sustainability criteria as part of that. But again none of this – this is not mandated as part of any particular policy (AU6)

And the lack of integration and strategic thinking was highlighted in regard to structure and operationalising of policy. Many Australian interviewees spoke of the lack of strategic thinking in regard to procurement.

> We have a procurement policy in place but it is hard to try and integrate sustainability measures into it…although we currently encourage local supply; applying sustainability criteria to the procurement policy and tender selection process and offer training for procurement staff for including sustainability criteria in purchasing decisions...the approach is still very ad hoc though, and not as integrated as we would like it to be (AU9).

And the budgeting environment can be problematic:

> I guess the whole budgeting structure is good in that in makes people feel more that it is my money that I'm spending so they're very inclined to be very closely controlled and tight with it but it's bad in that it makes them focus sometimes very much on the short term, "what's in my budget, this year?" Rather than the kind of longer term, "wider goal for the university over the next umpteen years? (UK1).

From the discussion of the considerations in embedding an effective SP policy at universities, it is clear that the challenges are significant. From lack of senior management support for the business case, a policy framework that does not provide practical and pragmatic guidance on implementation, integrating sustainability in a way that continues to deliver 'value for money', to improvements required in supplier engagement on the issues.

Universities that had a clear and strong sustainability strategy were clearly at the forefront of developing SP policies. The activities included developing brochures, putting in place structure, focusing on gaining awards and then moving to a fuller integration.

> We got a government award on sustainable procurement … We got the higher education awards, for environment. We won one on sustainable procurement and we won one on waste. …we had to get the policies and really market the concept of sustainability and we produced separate books for procedures, strategies just to promote and market it. Hence we had a "Green Buying Guide" which I produced but it all takes time and now what we're trying to do is integrate it as it's actually part of the job so it's not seen as an addition…. The finance procedures, the

> purchasing procedures will just have sustainability built into it and certainly my staff have sustainability written into their job descriptions (UK4).

Other important criteria for driving the strategy is to firstly identify

> …areas where there is a sustainability feature but also where there is a financial advantage to the university in doing it as well because we feel that we are more likely to get the buy-in from our end users in terms of those sorts of projects (UK3).

Whilst an Australian interviewee in speaking of the benefits and of the need for strategic prioritising as well as collaboration stated:

> I think we've got to get better at, I guess, selling the options of total cost of ownership, rather than just the hard line savings straight up … I think to become sustainable, it's one thing we've got to do, we've got to get together and make the sector sustainable, because our funding is shrinking, and in eight years time, who knows where the funding is going to be. So it wouldn't be a bad decision now to start looking at long term options about sustainable ownerships, and reducing some long term cost (AU10).

Table 2: Summary of findings based on thematic codes

THEMATIC CODES	**Australia**	**UK**
Drivers		
Institutions	Voluntary	Mandated
Students	Limited role	Greater role
Practices and Priorities		
Efficiency/Price	Significant consideration	Significant consideration
Materiality	Limited mention	Limited mention
Whole of life costing	Significant consideration but limited application	Significant consideration with some application
Supplier diversity	Beginning to be considered with lack of implementation	Significant consideration with practices beginning to be implemented
Issues		
Consistency	Significant issue	Significant issue
Centralized/Decentralized decision-making	Significant issue	Less significant
Behavioural incentives for/barriers to change	Lack of incentives. Key to success of SP	Coming from institutional structures. Key to success of SP

A summary of the key findings from the interviews and focus groups is presented in Table 2. Overall, the findings suggest a greater emphasis on SP in universities in the UK, compared to Australia. This is driven primarily through student involvement in decisions about procurement, more collaboration among universities in the form of purchasing consortiums, and a national policy context that prioritises SP in universities.

The findings from Australia and the UK highlight similarities in terms of the practices and priorities related to sustainable procurement in universities, particularly as they relate to the need to balance sustainability considerations with efficiency/cost drivers, which continue to be perceived as a trade-off. Supplier diversity and whole-of-life costing were seen as priorities for the future, with little evidence to suggest that these practices are currently being embedded.

In terms of the key issues perceived to impact on SP policy and process, consistency in decision-making was seen as key to the effective implementation of a policy, as was the need to have senior management buy-in into the process. The devolved purchasing environment, which is characteristic in universities, was raised as a barrier to the effective adoption of SP.

In contrast, from a stakeholder perspective, UK universities appear to account for pressures from their institutional stakeholders and students in their decision-making around sustainable procurement whereas the Australian universities spoke specifically of funding pressures in this regard.

DISCUSSION

The interviews with procurement practitioners highlight that the focus of sustainability is on purchasing, and sustainability considerations that can be incorporated into the contract; rather than on other functions of procurement such as expediting, inspection or shipping (see Ward, 2008). Interestingly more broadly the transportation of goods is seen as a 'sustainability' consideration although not one regarded by the interviewees as a key consideration in this sector.

The continued hegemony of price considerations in procurement is an ever-present barrier to implementing SP, despite its range of benefits (also see Martin 2009). Notwithstanding this, this research supports Krizek et al. (2012) in contending that university executives are generally supportive of the enhanced efficiencies/cost savings, as well as the reputational returns from sustainability efforts. However, Krizek et al. (2012, 22) claim that they are less supportive of sustainability initiatives that involve broader life cycle practices, greater stakeholder inclusion and transparency initiatives. This short term focus creates a challenge for SP, where our research highlights a need for greater emphasis on whole-life costing (a prominent feature in best practice definitions of SP) and stakeholder engagement through education and capacity building in order to drive change. Whole of life costing and more developed approaches to stakeholder engagement are tools for longer term financial success and unlikely to appeal to university executives with a short term time horizon and without a long term vision and/or plan to achieve it.

Hidson and Clement (2008) suggest that costs borne through SP policies become neutralized in the medium, and lower in the long run. While this directly counters the perception that SP 'costs' more in absolute terms, it still continues to be a sticking point for

university leaders faced with year-on-year budgetary pressures. This points to the imperative of University Councils holding management to account for strategy documents which generally have a medium to long term horizon (Adams 2013).

The range of sustainable alternatives has also been seen to be an issue in developing clear SP practices. The data from this research on the efficiency/cost drivers for SP and a number of sources have highlighted this shortage (see Brammer and Walker 2011; Meehan and Bryde 2011; Srivastava 2007; Velazquez et al. 2006; Walker et al. 2008; Walker and Jones 2012). Assuming a lack of sustainable alternatives to supply as axiomatic, the challenge then becomes one of collaboratively building capacity among suppliers to produce more sustainable products. As Meehan and Bryde (2011) point out, sustainable procurement can often lead to competing and compromising positions regarding two or more elements of the triple bottom line (TBL). In this case, sourcing locally drives the social agenda, while local suppliers often do not have the capacity or scale economies to produce products with strong environmental credentials cheaply. This then also negatively affects the economic bottom line, thereby creating the oft-present trade-off between the three elements of the TBL.

A number of the barriers spoken of demonstrate a general lack of understanding and familiarity with sustainable procurement at all levels of the organization. In order to provide the legitimacy SP requires, the importance of strong leadership in driving the knowledge and change is imperative (also see Adams, Heijltjes, Jack, Marjoribanks, and Powell 2011; Mulder 2010; Wright 2002). Brammer and Walker (2011) also stress that organizations need the skills, capacity and knowledge to develop the competencies required for effective strategic procurement policy formation and execution. Other studies have also found that ‘purchasing managers are unsure of how to incorporate ethical and social issues in their buying’ (Cooper

et al. 2000; Maignan *et al.* 2002, cited in Brammer and Walker 2011, 457). The development of an SP strategy hinges on the organizations' structure, culture, and incentive structures in driving it (also see Brammer and Walker 2011).

There is a dearth of research on the role of incentives in delivering an effective sustainable procurement strategy. Krizek et al. (2012) argue that unless there are clear incentives such as increasing resources available to the function, pay raises linked to key activities and employee rewards attached to any sustainability effort, positive results are likely to be untenable. This could form part of a more formalized change program.

Organizational culture has been examined from a number of different perspectives in this context. Lutz (2009) for example, addresses the supporting factors required for effective alignment of sustainable procurement and sustainable development goals and their integration at universities. These are factors such as transparency, organizational culture and strategy. This is supported by Adams (2013) who emphasizes the importance of collaborative leadership styles (particularly relevant given the decentralization of University SP), a whole of University approach to sustainability and the commitment of the Vice-Chancellor/President and University Council. Moreover, Button (2009) argues that innovation in sustainable procurement requires a culture and mind-set shift, towards one that is centred on the principles of sustainability currently lacking in the Australian university sector in particular (Adams 2013).

The findings from this research suggest a significant role that the institutional environment plays in creating the organizational impetus for SP, in terms of institutional structures, funding pressures and regulation. This supports the 'conformist' perspective in

Neo-Institutional theory (DiMaggio and Powell 1983; Oliver 1997), where organisational processes and structures align with their respective institutional environmental norms and pressures over time. Moreover, the institutional environment where stakeholders have increasing influence through norms and cultural expectations seems to be more influential at the moment this research was conducted in the UK compared to Australia.

Our research shows that in universities in both countries, SP is occurring in some areas such as food, stationery, waste, travel and recycled paper. This emphasizes the need for sustainability to be integrated into overarching university vision statements and strategic plans in order to facilitate change (also see Scott, Tilbury, Sharpe and Deanne 2012). Based on evidence from the UK interviews, this is unlikely to happen unless universities are held to account for their sustainability performance. As Jones (2014) cautions the adoption of neo liberalism in the higher education context can influence the adoption of environmental and sustainability policies in terms of institutional greenwashing. Accountability measures can go some way to ensuring the adoption of such policies is integrated and taken into account more broadly than simply being based on price considerations. Accountability in terms of going beyond institutional considerations such as 'league tables' (such as Green League Tables, see Jones, 2014) and a focus on carbon reduction, to one that more broadly encompasses a broader range of measures including transportation and expediting, ethical procurement and investing, local employment and stakeholder engagement (including staff and students).

CONCLUSIONS

The research demonstrates the potential for developing a compelling business case for SP, where the perception of higher costs in the short term can be mitigated. The greater challenge, however, remains in that embedding SP requires significant organizational changes to be

enacted within and outside the university's boundaries. Indeed, as Walker and Phillips (2006) posit, sustainable procurement is challenging mostly because of the amount of change required outside the boundaries of the organization; to the supply chain, policymakers and partners (such as purchasing consortia (Burley et al. 2012)). Our research demonstrates that Universities could be drivers of such change and points to longer term benefits of taking this leadership position.

Further research might examine the extent to which sustainability issues are included in University procurement Key Performance Indicators and policies and best practice for doing so. Moreover developing a larger survey would produce more generalizable findings. This research has limitations as it is exploratory and therefore not generalizable, focusing on universities in two countries and interviewing only those involved in procurement. Surveying university management more broadly as well as staff and students would add to the richness of the data. And in doing so answer other questions that the paper raises in terms of the role of students and whether universities can drive change more broadly.

While the literature and practice of sustainable procurement has largely focused on environmental concerns to date, there is now a shift towards incorporating social issues such as bribery, unfair contracting, health, safety and ethnic minority suppliers in an integrated fashion (Brammer and Walker 2011; Walker and Phillips 2006). This research highlights this change of focus and points to the changing priorities with special emphasis on local purchasing and local employment.

Demonstrating an increased emphasis and growing popularity of university purchasing consortia, the paper highlights the opportunity to build momentum for change through

leveraging these consortia, especially in relation to supplier selection and capacity building among suppliers.

REFERENCES

ACCSI (2013) *Labour and Human Rights Risks in Supply-Chain Sourcing*. Australian Council of Superannuation Investors and Regnan Governance Research & Engagement, Melbourne, Australia.

Adams, C. A. (2013) Sustainability reporting and performance management in Universities: challenges and benefits, *Sustainability Accounting, Management and Policy Journal*, 4:3 pp384-392.

Adams, C. A., Heijltjes, M., G. , Jack, G., Marjoribanks, T., and Powell, M. (2011) The development of leaders able to respond to climate change and sustainability challenges. *Sustainability Accounting, Management and Policy Journal*, 2:1 pp165-171.

Adams, C. A., Muir, S. and Hoque, Z. (2014) Measurement of sustainability performance in the public sector, *Sustainability Accounting, Management and Policy Journal*, 5:1, pp.46 – 67

APCC (2007) *Australian and New Zealand Government Framework for Sustainable Procurement.* Australian Procurement and Construction Council, Canberra, Australia.

Arlbjørn, J. S., and Freytag, P. V. (2012) Public procurement vs private purchasing. *International Journal of Public Sector Management*, 25: pp203-220.

Barr, N. (1998) Higher education in Australia and Britain: What lessons? *Australian economic review*, 31:2, pp179-188.

Barr, N. (2012) The Higher Education White Paper: The Good, the Bad, the Unspeakable–and the Next White Paper. *Social Policy & Administration*, *46*:5, pp483-508.

Bishop, J. E. (2002) Consortium Purchasing. *New Directions for Higher Education, Winter*, p120.

Brammer, S., and Walker, H. (2011) Sustainable procurement in the public sector: an international comparative study. *International Journal of Operations & Production Management*, 31:4 pp452-476.

Bryson, J. M. (2004) What to do when stakeholders matter: stakeholder identification and analysis techniques. *Public management review*, 6:1 pp 21-53.

Bull, R., Meida, L. O., and Holland, C. (2011) *Briefing Paper: Sustainable Procurement and Carbon Management: the potential for savings.* DeMontfort University, Leicester, UK.

Burley, D., Gnam, C., Newman, R., Straker, H., and Babies, T. (2012) Leveraging higher education consortia for institutional advancement. *International Journal of Educational Management*, 26:3 pp274-283.

Button, C. E. (2009) Towards carbon neutrality and environmental sustainability at CCSU. *International Journal of Sustainability in Higher Education*, 10:3 pp279-286.

CIPS (2009) *Knowledge Summary - Sustainable Procurement*: Chartered Institute of Purchasing and Supply, London, UK.

Creswell, J. W. (2008) *Educational research: planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.

Currie, J., and Vidovich, L. (2000) Privatization and competition policies for Australian universities. *International Journal of Educational Development*, 20:2 pp135-151.

DEFRA (2006) *Procuring the Future – The Sustainable Procurement Task Force National Action Plan*, Department of Environment, Food, and Rural Affairs, London, UK.

DiMaggio, P. J., and Powell, W. W. (1991) *The new institutionalism in organizational analysis* (Vol.17). Chicago, IL: University of Chicago Press.

Econsense (2013) *Sustainability in Global Supply Chains*. Econsense, Copenhagen, Denmark.

European Commission (2011) *Compendium of public CSR policies in the EU 2011*. Available: http://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=1012

GRI (2013) *G4 Sustainability Reporting Guidelines*. Global Reporting Initiative, Amsterdam, The Netherlands.

Glock, C. H., and Broens, M. G. (2011) The Organization of Purchasing at German Universities: An Empirical Investigation. *International Journal of Public Administration,* 34:10 pp662-673.

Harms, D., Hansen, E. G., and Schaltegger, S. (2013) Strategies in Sustainable Supply Chain Management: An Empirical Investigation of Large German Companies. *Corporate Social Responsibility and Environmental Management*, 20:4 pp205–218.

Hidson, M. and Clement, S. (2008) *Driving Sustainability through Procurement: The Procura+ Campaign,* 3rd International Public Procurement Conference Proceedings. 28-30 August 2008, Amsterdam, The Netherlands.

Jones, D. R. (2014) Biting the League table that feeds: Reflections on manageralism at work within UK Unievrsity Sustaianability Agendas, *Journal of Workplace Rights,* 17:3-4 pp389-410.

Krizek, K., J. , Newport, D., White, J., and Townsend, A. R. (2012) Higher education's sustainability imperative: how to practically respond? *International Journal of Sustainability in Higher Education,* 13:1 pp19-33.

Lukman, R., and Glavič, P. (2007) What are the key elements of a sustainable university? *Clean Technologies and Environmental Policy,* 9:2 pp103-114.

Lutz, P. (2009) Addressing sustainable development through public procurement: the case of local government. *Supply Chain Management,* 14:3 p213.

Martin, L. (2009) *Sustainable Government Procurement: An assessment of current policies, practices and opportunities for improvement.* Total Environment Care Inc, Sydney, Australia.

McFarlane, A. (2013) *Sustainable Procurement Centre of Excellence Leadership, Government and Management Fund Project no. 109 – end of project report*. Higher Eduction Funding Council for England, London, UK.

Meehan, J., and Bryde, D. (2011) Sustainable procurement practice. *Business Strategy and the Environment,* 20:2 pp94-106.

Miles, M. B. and Huberman, A. M. (1994) *Qualitative Data Analysis: An Expanded Sourcebook.* Thousand Oaks: Sage Publications.

Mulder, K. F. (2010) Don't preach. Practice! Value laden statements in academic sustainability education. *International Journal of Sustainability in Higher Education,* 11:1 pp74-85.

Oliver, C. (1997) Sustainable competitive advantage: Combining institutional and resource-based views. *Strategic Management Journal*, 18:9 pp697–713.

Patton, M. Q. (1990) *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage Publications.

Quayle, M., and Quayle, S. (2000) The impact of strategic procurement in the UK further and higher education sectors. *International Journal of Public Sector Management,* 13:3 pp260-284.

Ragin, C.C. (1987) *The comparative method: moving beyond qualitative and quantitative strategies*. Berkeley (CA): University of California Press.

Schwartz, S. (2011) Irreconcilable differences. *The Times Higher Education Supplement, 05 July 2011, p*28.

Scott, G., Tilbury, D., Sharp, L., Deane, E. (2012) *Turnaround Leadership for Sustainability in Higher Education Institutions.* Office for Learning and Teaching, Department of Industry, Innovation, Science, Research and Tertiary Education. Sydney, Australia.

Shah, M., Lewis, I., and Fitzgerald, R. (2011) The renewal of quality assurance in Australian higher education: the challenge of balancing academic rigour, equity and quality outcomes. *Quality in Higher Education, 17*:3, pp265-278.

Sheehy, B. (2010) Regulation by markets and the Bradley Review of Australian Higher Education. *Australian Universities Review,* 52:1 pp60-68.

Sheil, T. (2010) Moving beyond University Rankings: Developing a World Class University System in Australia. *Australian Universities Review*, 52:1 pp69-76.

Sloan, T. W. (2010) Measuring the Sustainability of Global Supply Chains: Current Practices and Future Directions. *Journal of Global Business Management*, 6:1 p92-107.

Srivastava, S. K. (2007) Green supply chain management: A state of the art literature review. *International Journal of Management Reviews*, 9:1 pp53-80.

Thomson, J., and Jackson, T. (2007) Sustainable procurement in practice: Lessons from local government. *Journal of Environmental Planning and Management,* 50:3 pp421-444.

Velazquez, L., Munguia, N., Platt, A., and Taddei, J. (2006) Sustainable university: what can be the matter? *Journal of Cleaner Production*, 14:9 pp810-819.

Walker, H., Di Sisto, L., and McBain, D. (2008) Drivers and barriers to environmental supply chain management practices: Lessons from the public and private sectors. *Journal of Purchasing and Supply Management,* 14:1 pp69-85.

Walker, H., and Jones, N. (2012) Sustainable supply chain management across the UK private sector. *Supply Chain Management: An International Journal*, 17:1 pp15-28.

Walker, H., and Phillips, W. (2006) Sustainable procurement: Emerging issues. In *International Public Procurement Conference: Proceedings 21-23 September 2006*, Rome, Italy.

Walton, S., V. , and Galea, C., E. (2005) Some considerations for applying business sustainability practices to campus environmental challenges. *International Journal of Sustainability in Higher Education*, 6:2 pp147-160.

Ward, G. (2008) *The project manager's guide to purchasing*. Hampshire: Gower.

Worthington, A. C., and Higgs, H. (2011) Economies of scale and scope in Australian higher education. *Higher Education*, *61*:4 pp387-414.

Wright, T. S. A. (2002) Definitions and frameworks for environmental sustainability in higher education. *Higher Education Policy*, 15:2 pp105-120.

Young, S. and Marais, M. (2012) A multi-level perspective of CSR reporting: The implications of national institutions and industry risk characteristics, *Corporate Governance: An International Review*, 20:5 pp432–450.

Young, S. and Nagpal, S. (2013) Meeting the Growing Demand for Sustainability-Focused Management Education: A Case Study of a PRME Academic Institution, *Higher Education Research & Development*, 32:3 pp493-506.