



Staff Perception of Sustainable Procurement - A study of the University of Brighton

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ABSTRACT: This study explores the staff views of the sustainable procurement strategy and the factors that drive and hinder the university in its effort to procure sustainably. An exploratory study was conducted using an internet-based survey of the staff members and semi-structured interviews with key members of the staff. Although there are more internal drivers identified in the university, it was observed that the external drivers had greater influence in the adoption of the strategy. The barriers recognized in this research were predominantly internal. Based on the results of this research, the staff perception is that the strategy will bring about the adoption of best practices that have the potential to influence changes in supplier and social behavior. The critical success factors identified in this study are finance-related factors with the potentials to disrupt the strategy and the effective communication required to engender participatory involvement.

Keywords: Sustainable Procurement, Internal Driver, Sustainability

ORIGINAL ARTICLE

INTRODUCTION

Sustainable procurement is described as the pursuance of the objectives of sustainable development through the purchasing activity of an organization (Brady, 2008). The practice allows an organization manage and control its environmental impacts from the point of purchase. Sustainable procurement practices compliment environmental management systems in achieving the objectives of sustainability by implementing prevention at source. Guidelines and strategies for green purchasing are now implemented to require suppliers to meet the needs as to quality, product safety and the least environmental impact from consumption (Chen, 2005). Recently, the British Standard 8903:2010 was released to assist organizations in implementing sustainable practices in their purchasing activities. The primary objective of the standard was to promote integration of environmental responsibility in the acquisition, use and disposal of product items and services (BSI, 2010).

Despite the growing attention, there have been criticisms and skepticisms of the adoption of environmental supply initiatives as being reactive to regulations (Min and Galle, 2001) or simply a 'green wash' or PR exercise (Greer and Bruno, 1996). This research looks beyond the literature and investigates the perception of sustainable procurement amongst its practitioners.

Most research on sustainable procurement has been conducted in the private, public and construction sectors. There is need for studies on procuring sustainably in the Higher Education sector. By virtue of special societal responsibility, universities make significant contribution to societal development and

protection of the environment. Therefore, it is imperative that the institutions 'champion' best practices in support of the common good. Thus, this research is to advance an explore staff perception of the sustainable procurement within the university environment, using the University of Brighton as a case study.

Site description

The University of Brighton is a multi-campus university, all situated in the Southeast area of the United Kingdom. There are five main campuses; three locations in Brighton at Moulsecoomb, Grand Parade and Falmer; one campus in Eastbourne and another one in Hastings (Figure 1). The community consists of over 21,000 students and 2250 staff (University of Brighton, 2010). By total number of student population, the university easily ranks above average in the UK (HESA, 2011a).

MATERIALS AND METHODS

Two main data collection techniques was employed to facilitate this study; the use of a self-administered survey and a semi-structured interview to obtain in-depth understanding of stakeholder views. Based on this premise, the main focus, in terms of stakeholders, will be university staffs that are involved in purchasing functions and budget holders. Other stakeholder perspectives, of those in positions of authority, will also be obtained and analyzed to gain a richer understanding of the likely impact of sustainable procurement in the university.

As a result, the data collected would be regarded as primary data.

Secondary data will also be collected as part of the information sources for data analysis. These data will come from a variety of university documents including; Annual Review 2009/2010, Report and financial statements year ended 31 July 2010, Financial Regulations, Sustainable Development Policy, Sustainable Procurement Strategy 2011 – 2015, and Sustainable Food Policy 2011 (Catering services).

These secondary data, coupled with the data obtained from both the questionnaires and the interview will provide a clear picture of sustainable procurement in the university through the comparison of the university objectives and staff perceptions towards it.

RESULTS

A total of 82 members of staff of the University of Brighton responded to the online survey administered, while eight of the key staff members were available for the semi-structured interview. For the ease of presentation, the outcome of the interviews will be reported separately from those of the online survey.

Participant characteristics

In order to examine the opinions and perception of staff in relation to the procurement strategy being implemented by the university, specific variables such as the department, work schedules, length of service in the employment of the university, managerial roles, gender, age and level of involvement in purchasing of each staff was considered. These variables were used to assess the background of the respondents and their perception of the sustainable procurement strategy being implemented by the university.

Of the 82 respondents, a total of 44 (54%, n=82) were administrative staff, 34 (41%, n=82) were academic staff and 4 (5%, n=82) were technical staff. This is almost representative of the university's staff statistics where the academic staff (research and teaching) make up about 40% of the total workforce (University of Brighton, 2010). The highest number of respondents was recorded from the Faculty of Science and Engineering, constituting about 23% (n=82). Only one response each was received from staff in the administrative units recording one response each. In spite of the summer break more responses were received from the academic departments.

About 30% (n=78) of the respondents occupy managerial positions in the university, while the majority (71%) of the respondents are not at the management level. There is more administrative staff at the management level than those in the academic departments, 14 out of the 78 respondents (18% of total respondents). The only senior managerial

position was also occupied by an administrative staff, while none of the technical staff was above junior management level. A substantial number of responses on managerial role were received from staff at the middle management level (about 18% of valid responses), constituting over 52% of those respondents at the managerial level.

For the age and gender profile of the respondents, about 69% of the 41 respondents that indicated their age are female, with the males making up the remaining. The highest response was received from the '50+' age category (35%, n= 41) while fewer responses were recorded from below 30 years (14%, n=41).

Awareness of sustainable development initiatives in the university

The level of awareness of the respondents to sustainable development initiatives in the university was tested using various variables such as their work role, managerial role, gender and age. The work role of the respondents was examined to determine if it had sufficient influence on their level of awareness of sustainable development initiatives in the university. Result showed that about 59% (n=78) of the respondents were aware of one of the various initiatives employed by the university to support sustainability. About half (49%, n=43) of the respondents from the administrative cadre were aware of any initiative. Meanwhile more academic staff (67%, n=33) was aware of any of such initiatives compared to those who indicated 'No' in their cadre. 41% (n=78) of all the staff who responded claimed they were not aware of any initiatives. Interestingly, all the technical staff who responded stated that they were aware.

From the result, it is obvious that a greater portion of the administrative staff (51%, n=43) were not conversant with any of the university's sustainable development initiatives. It may be inferred that effective dissemination of the initiatives were not properly communicated to the administrative staff in respect to their academic counterparts. Alternatively, academic curiosity may be responsible for the greater number recorded from the academic staff.

The level of awareness of sustainable development strategy was then compared in relation to the managerial positions occupied by the respondents. The result showed that about 71% (n=78) of those who responded on the influence of managerial role on awareness of sustainability initiatives were not at the managerial level. There is an almost equal ratio of non-managerial staff that is aware of the sustainable development initiatives (51%, n=55) and those that are not aware of them (49%,

n=55). Twenty two percent (n=78) of the total respondents in the management level indicated that they were aware, which represents about 78% (n=23) of the total management level.

The respondents' gender was also used as a determining factor on their awareness of sustainability initiatives in the university. Only 41 respondents indicated their gender. About 32% (n=41) of this number were males while 68% females responded (n=41). About 71% of the respondents (n=41) stated that they were aware of at least one sustainability initiative, of these only 27% (n=41) were males.

Perception of the sustainable procurement strategy in the university

As a sensible start point, all of the eight interviewees were asked to describe what university sustainable procurement meant in their own opinion. Several approaches were taken in their description, which is reflective of the roles they played in the university. The identified themes recognized in their descriptions resonate some of the definitions by different scholars. Although, one of the interviewees had a totally divergent view of the sustainable procurement strategy, describing it as "*Green banner of all talk and no real value*".

The interviewees were then asked to describe their reaction to the recently launched sustainable procurement strategy. 5 out of the 8 interviewees described themselves as enthusiastic of the policy to be developed as a result of the strategy. Two of the interviewees described their reaction as being 'interested' in seeing the real application of the strategy. Furthermore, all the interviewees considered themselves responsible for the sustainable procurement strategy in their various units/designations as a function of their purchasing roles in the university. Therefore, the responses collected from the online survey were first examined to determine if the purchasing role had sufficient influence on the level of awareness of sustainability initiatives amongst staff. About 37% (n=78) of the respondents had purchasing functions in the university, however only 59% (n=29) of them were aware of sustainable initiatives in the university. Interestingly, of those staff without purchasing functions, about 59% stated they are aware of one of the initiatives.

Identified drivers and challenges to the procurement strategy

A forced ranking system was employed in this aspect of the administered questionnaire to ensure that the respondents rank in order of importance the factors they considered as influential in the implementation of the sustainable procurement

strategy. A simple grading system of 1st to 5th position was utilized, requiring respondents to consider their answers carefully and objectively.

External factors responsible for the adoption of the sustainable procurement strategy

Fifty responses were received for the ranking of external factors. Two factors; due diligence and regulatory compliance, and pressures from funding bodies had the highest weighted values while initiatives at other universities were rated low as reasons for implementing the strategy. Meanwhile, pressure from the environmental advocacy groups, and university associations, partnerships and agreements are other factors that cannot be ignored.

Five out of the eight interviewees cite the influence of regulatory compliance as a major driver for the sustainable procurement in the university. A clearer understanding was provided when three out of them went ahead to explain that a 'Carrot and Stick' approach was adopted by the Government and funding bodies, that they will get required funding for compliance to set targets.

"...Government targets to universities to reduce their carbon emissions to 80% by 2050. Also, there is future capital funding for achieving the set targets, using the carrot and stick approach".

Internal factors responsible for influencing the sustainable procurement strategy

A total of 43 survey responses were received for the identification of the internal factors influencing the sustainable procurement strategy in the university. The identified internal drivers in order of importance are; corporate governance/ management's directive; the potentials for operational cost savings; responsibility to minimize environmental impact; employee involvement; and university corporate image and concerns.

Responses of seven out of the eight interviewees agreed with the result obtained from the questionnaire when they reiterated that top management was a major driving force in the implementation of the strategy. A visual comparison of the results showed that there are more internal drivers pushing the university towards sustainable procurement than the external drivers. This observation was also noted by Davey *et.al.* (1999).

Recognized barriers likely to hinder the sustainable procurement strategy.

In the determination of the barriers perceived to the success of the sustainable procurement strategy, a degree of freedom was granted to the respondents allowing them to answer how likely or unlikely they

feel the factors will affect the implementation. A total of 43 responses were received in this regard and the descriptive responses graded from 'Very likely' with a ranking of 2 graded to -2 for 'Very unlikely'. The 'Don't know' responses have been graded 0.

Further analysis showed that cost efficiency of budget centers had sufficiently higher ratings. This result agrees with the reports of Barnes and Jerman (2002) and Velazquez *et al.* (2005) that university 'administrators' will develop keen interest in sustainability initiatives when cost savings can be recognized.

The other factors in order of ranking are ambiguity of policy and guidelines; lack of management commitment; multi-campus nature of

the university; and the impossibility of implementing the strategy in all sections of the university.

All the interviewees agreed that available finance bear huge influence on the success of the strategy as currently critical in recent times. Although, ambiguity has been highlighted as an important factor, it is expected that training and awareness will enable a communication process that will address the uncertainties in the policy. Lack of management commitment is also seen to be essential for the implementation of the strategy, which echoes the findings of Min and Galle (2001). The respondents do not feel that the strategy will be affected by the multi-campus nature of the university and they have reiterated the result obtained, that the strategy will be feasible in the university.



Figure 1 – Geographical locations of the University of Brighton

DISCUSSION

Level of awareness of sustainability initiatives

The findings revealed that about 3 out of 5 respondents (59%, n=78) were aware of at least one of the various sustainability initiatives of the university. The declaration of the university as a pro-sustainability university should not reflect a borderline outcome of aware staff members. These are the stakeholders that will eventually be involved in the implementation of the strategies. If the awareness is almost average, it makes understanding of their roles difficult.

The consciousness of the sustainability initiatives was not influenced by their gender or their age. There was no significant correlation to be made from the investigations carried out that those two

factors contributed to the awareness of sustainable development initiatives of the university.

According to the findings, 1 out of 2 of the respondents employed in the last 5 years is unaware of the sustainability initiatives of the university. This means that strategies to support sustainable development initiatives have not been effectively communicated in the last five years. Another consideration is absence of the indication of the university's pro-sustainable development status in introductory packages to new staff members.

In conclusion, effective communication and appropriate delivery channel is essential to ensure that the stakeholders are well informed of the university's sustainability initiatives and encourage participatory involvement. The action plans must be readily available and updated. For example, the old

sustainable development policy 2006-2010 is currently being paraded as the policy in place, whereas there is policy covering 2010 to 2012. It is obvious that the managers play an important role in communicating the university's goals and values to their staff both old and new. This responsibility of the managers should be emphasized to ensure information dissemination along the cadres; however this might be difficult if those managers do not understand the strategies or believe in them.

Staff perception of the sustainable procurement strategy

From the results obtained, an estimated 3 out of 5 (59%, n=29) purchasing stakeholders have the knowledge of the strategy. Also, there was no significant correlation to be observed between the knowledge of sustainability initiatives and their purchasing roles. This implies that the strategy has not been effectively circulated amongst the staffs that have direct relationship with it. As observed by Geng and Doberstein (2008), lack of awareness portend major constraint to reaping the benefits of the strategy. The researcher was unable to obtain the total number of designated staff that is involved in the purchasing activity of the university. This has been attributed to the reluctance to release the data or another consideration that the university does not have the requested information.

A clearer picture of staff perception of the sustainable procurement practice was obtained from the interaction with the interviewees. Interesting to note is the seemingly different approach the interviewees had in the description of the practice which was indicative of the functions and responsibility in the university. The recognized patterns include consideration of socio-environmental implications in purchasing decisions (Brady, 2008); integrating whole life costing in purchasing decisions (Bouweret *al.*, 2005); minimizing environmental impact (Varnaset *al.*, 2009); and procurement in line with UK and EU public procurement regulation (DEFRA, 2005).

The above descriptions are from seven of the interviewees who are linked to the development of some of the university's sustainable development initiatives. The last interviewee had a disparate view of the practice, describing it as a 'green' PR exercise with no substance. This view echoes the conclusions of Greer and Bruno (1996) that organizations proclaim changes to their purchasing activities but the actual practice do not change thereby creating a 'green wash'.

Obviously, the required buy-in of all stakeholders has not been achieved which has caused a difference in the understanding of the values and

objectives of the strategy. As evidenced from the responses of the interviewees, the findings agree with the conclusion of Clark and Kouri (2009) that the perception of sustainability initiatives often depended on the role, awareness and level of involvement of the interviewee.

Factors driving universities to adopt sustainable procurement

The observed relationship between the key drivers identified is illustrated in Figure 2. The external drivers are seen to be encouraging the university management to mobilise resources (employees) in the timely realization of potentials cost savings while promoting their responsibility to the environment.

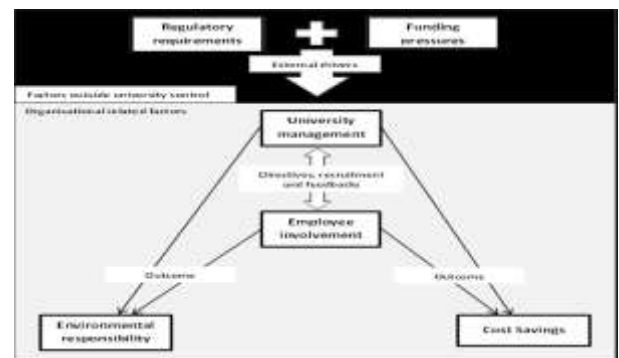


Figure 2- Observed relationship between the external and internal drivers of the sustainable procurement strategy

The results obtained for both the external and internal drivers reinforces the findings of Thompson and van Bakel (1995, cited in Clarke and Kouri, 2009), where they regarded legislation and financial pressures as the most important factors for environmental performance in a university. Therefore, this findings of this research agree with Sammalisto and Arvidsson (2005) that although internal drivers often appear According to the classification by Bennett and James (1999), the University of Brighton exhibits strong first generation drivers of cost and compliance. Although, there are evidences of transition into the second generation drivers that incorporate stakeholder management, declarations and educational responsibility, the first generation have the higher influence.

According to the findings of this research, there are more weighted internally driven factors that have propelled the university to adopt the sustainable procurement strategy than the external factors. This corroborates the findings of Davey *et al.*, (1999) that drivers for environmental initiatives in universities are usually centred on internally driven factors. This is not to say that the external factors do not have significant impact in encouraging the university along those lines,

but a consideration that there are more sufficiently weighted internal factors than the external.

Challenges to the successful implementation of the strategy

The identified, challenges to be encountered in the implementation of the sustainable procurement strategy are discussed in the section below. The perceived barriers seem to be predominantly internal to the institution.

The findings of this research revealed that cost efficiency of the devolved budget center is considered the main impediment to the successful application of the strategy. This is a combination of the outcomes on 'Focus on cost efficiency of budget centers' and the 'Devolved nature of administration and budget' that have invariably ranked first and third positions respectively. This result agrees with the outcomes of other research that cost concerns are the major obstacle to integrating environmental factors into the procuring process (Min and Galle, 2001; Walker *et al.*, 2008). With the new outlook of funding in UK higher education institutions, universities will be under competitive pressure to provide better quality at lower cost (BIS, 2011). Due to this development, it is safe to imply that university administrators will favor sustainable development initiatives when there are cost savings to be realized (Barnes and James, 2002; Velazquez *et al.*, 2005).

Furthermore, the cost-related challenge is an offshoot of the external financial pressure encountered by the university. As revealed in the findings, the financial climate has the potential to disrupt sustainability initiatives of the university in a bid to survive. The downturn in the economy may lead to budget cuts in expenditure of the university units and as such, funds will be reallocated the priority goals of survival (Velazquez *et al.*, 2005). The multi-facial role of finance and funding supports the observation of Walker *et al.* (2008) that some of the drivers can also act as barriers.

Lack of awareness (Geng and Doberstein, 2008) and training of stakeholder participants (Carter and Dresner, 2001; Velazquez *et al.*, 2005), were duly identified as constraints to the successful implementation of the sustainable procurement. Awareness and training fosters understanding of the objectives of the strategy thereby encouraging participatory involvement. This method creates and communicates a shared value that becomes embedded in the decision making of the stakeholders.

The absence of management commitment was recognized by Min and Galle (2001). The lower outcome for the factor is evidence of the strong commitment exhibited by the management team of

the university. This fact supports the thinking that the absence of a factor that should be a driver to green purchasing automatically translates it into a barrier. In order words, if management commitment towards the initiative wanes, there will be a decline in the practice.

The responses on the effects of the 'multi-campus nature of the university' and the 'impossibility to implement the strategy in all sections of the university' reiterate the earlier outcome obtained on the feasibility of implementing the strategy in the university. Although, the responses may have been affected by the social desirability bias, the extent of that influence was not determined. This outcome contradicts the argument (Price, 2005) that successful implementation of centralized environmental initiatives is not possible in all sections of a university

Summary of discussion

There was more administrative staff that was unaware of the sustainable development initiatives than the other two categories (academic and technical). The awareness of the initiatives improved along the managerial lines in the university. Employees that have been recruited in the last 5 years have produced the highest response of not being aware of any initiative employed by the university to support sustainable development. Effective internal communication strategies should be developed to inform stakeholders at all levels. Managers should recognize the crucial roles they play in downward dissemination of information and upward feedback.

Staff perception of the sustainable procurement strategy should be improved by employing effective information strategies that will ensure that employees are aware of the purpose and intent of the strategy. The importance of communication cannot be over-emphasized as it enables the stakeholders (especially those with purchasing function) understand their roles and responsibilities. This will encourage participatory involvement that will bring about the desired positive outcomes.

Implementation of best practice is perceived as the overall aim of the sustainable procurement strategy with an added benefit of positive PR for the university. The practice has the potentials of influencing societal change in behavior with respect to sustainable development.

Regardless of the pro-sustainability stance of the university, the two major external drivers are considered to bear greater influence in the adoption of the sustainable procurement strategy. The timing of the adoption of the strategy suggests that the university management is forward looking, proactive and anticipatory of current trends in the current economic climate. Therefore, it is inferred that the

management is responsible for the internal drivers identified.

The barriers identified in this research are mostly internal to the institution. Cost concern is identified as the major constraint with the potential to derail the strategy in its entirety. The importance of communication is reinforced as a key delivery tool to remove the challenges that can be created by lack of awareness and training.

CONCLUSION

The objectives of this research were to identify the drivers and barriers to procuring sustainably in the university, and also to explore staff perception of the practice. The results of the data identified that there are external and internal drivers to the sustainable procurement strategy in the university. The findings reveal that management directive is the main internal impetus prompting other internal drivers. However, legislation and funding pressures from financiers are recognized to have greater influence in adopting the strategy.

Universities have a variety of drivers and barriers to the successful adoption of sustainable procurement practices. According to the reviewed literature, there has been more research that identified the drivers than the challenges encountered in the implementation of the practice. Initially, the driving forces of the sustainable procurement practice come into view as being internal, however further examination reveal that the external combining forces of legislation and funding pressures had greater influences.

The level of awareness of sustainable development initiatives in the university is not affected by the gender or age of the employees but by their work role, managerial position and length of service of employment. Effective communication and appropriate delivery channel is essential to the successful implementation of the sustainable procurement strategy. This encourages participatory involvement of the stakeholders in achieving the objectives of the strategy.

REFERENCES

- Barnes, P., & Jerman, P. (2002). Developing an environmental management system for a multiple-university consortium. *Journal of Cleaner Production*, 10, 33-39.
- Bennett, M., & James, P. (1999). ISO 14031 and the future of environmental performance evaluation. In M. Bennett, P. James, & L. Klinkers (Eds.), *Sustainable measures: evaluating and reporting on social and environmental performance* (pp. 29-97). Sheffield: Greenleaf Publishing Limited.
- Brady, J. (Ed.). (2008). *Environmental Management in Organizations: The IEMA Handbook*. London: Earth scan.
- Bouwer, M., de Jong, E., Jonk, M., Szuppinger, P., Lusser, H., Berman, T., Bersani, R., Nissinen, A., & Parikka, K. (2005). *Green Public Procurement in Europe- 2005 Status overview*. Retrieved March 18, 2011, from European Commission Environment: http://ec.europa.eu/environment/gpp/pdf/report_facts.pdf
- Carter, C.R., & Dresner, M. (2001). Purchasing's role in environmental management: Cross-functional development of grounded theory. *Journal of Supply Chain Management*, 13-27.
- Chen, C.C., (2005). Incorporating green purchasing into the frame of ISO 14000. *Journal of Cleaner Production*, 13, 927-933.
- Clarke, A., & Kouri, R. (2009). Choosing an appropriate university or college environmental management system. *Journal of Cleaner Production*, 17, 971-984.
- Davey, A., Earl, G., & Clift, R. (1999). Driving environmental strategy with stakeholder preferences: a case study of the University of Surrey. In F.W. Leal (Ed.), *Sustainability and university life* (pp. 47-66). Frankfurt: Peter Lang.
- Department of Environment, Food and Rural Affairs (DEFRA). (2005). *Securing the future- delivering UK Sustainable Development Strategy*. Retrieved May 29, 2011, from Department of Environment, Food and Rural Affairs (DEFRA).
- Geng, Y., & Doberstein, B. (2008). Greening government procurement in developing countries: Building capacity in China. *Journal of Environmental Management*, 88, 932-938.
- Greer, J., & Bruno, K. (1996). *Green wash: The reality behind Corporate Environmentalism*. New York: Apex Press.
- Higher Education Statistics Agency (HESA). (2011a). *Students in higher education institutions. All students by HE institution, level of study, mode of study and domicile 2009/10*. Retrieved July 11, 2011, from Higher Education Statistics Agency (HESA): www.hesa.ac.uk
- Min, H., & Galle, W. (2001). Green purchasing practices of US firms. *International Journal of Operations and Production Management*, 21, 1222-1238.
- Price, T.J. (2005). Preaching what we practice: Experiences from implementing ISO 14001 at the University of Glamorgan. *International Journal of Sustainability in Higher Education*, 6(2), 161-178.
- Sammalisto, K., & Arvidsson, K. (2005). *Environmental management in Swedish higher education; Directives, driving forces, hindrances,*

environmental aspects and environmental coordinators in Swedish universities. *International Journal of Sustainability in Higher Education*, 6(1), 18-35.

University of Brighton (2010). Financial Regulations-University and all subsidiary bodies. Retrieved July 18, 2011, from University of Brighton: <http://staffcentral.brighton.ac.uk/xpedio/groups/public/documents/staffcentral/doc002899.pdf>

Velazquez, L., Munguia, N., & Sanchez, M. (2005). Deterring sustainability in higher education institutions: An appraisal of the factors which influence sustainability in higher education institutions. *International Journal of Sustainability in Higher Education*, 6(4), 383-391.

Varnas, A., Balfors, B., & Faith-Ell, C. (2009). Environmental consideration in procurement of construction contracts: current practice, problems and opportunities in green procurement in the Swedish construction industry. *Journal of Cleaner Production*, 17, 1214-1222.

Walker, H., Sisto, L., & McBain, D. (2008). Drivers and barriers to environmental supply chain management practices: Lessons from the public and private sectors. *Journal of Purchasing & Supply Management*, 14, 69-85.