Editorial Preface

Special Issue on Sustainable Procurement: Current Trends, Opportunities and Future

Surajit Bag, Department of Supply Chain, Tega Industries South Africa Pty Ltd, Brakpan, South Africa

Sunil Luthra, State Institute of Engineering and Technology, Nilokheri, India

V.G. Venkatesh, Waikato Management School, University of Waikato, Hamilton, New Zealand

K.K. Pandey, O.P. Jindal Global University, Sonipat, India

Neeraj Anand, Department of Logistics and Supply Chain Management, University of Petroleum & Energy Studies, Dehradun, India

INTRODUCTION

Global warming is the result of an ecological imbalance created by overusing natural resources, burning plastics, generating high volumes of wastes, and general degradation of the environment. Traditional business models did not take environmental thresholds into consideration and increasingly consumed natural resources without applying the principles of recycling, reusing, and remanufacturing (Dubey et al., 2016). In recent years, increased awareness has increased the amount of pressure on local and national government bodies to create environmental protection policies and enforce them strictly to prevent further environmental degradation (Mani et al., 2016). This has led to the evolution of sustainable procurement practices. The building blocks of sustainable procurement implementation are: Eco labeling scheme; Education and awareness programs; Establishment of regulatory authority; National action plan on green procurement and Legal framework for green procurement. There is not much difference between the term sustainable procurement and green procurement. Research literature shows that sustainable procurement and green procurement has been used interchangeably by prior researchers. Sustainable procurement involves procurement decisions while considering the economic, environmental and social dimensions.

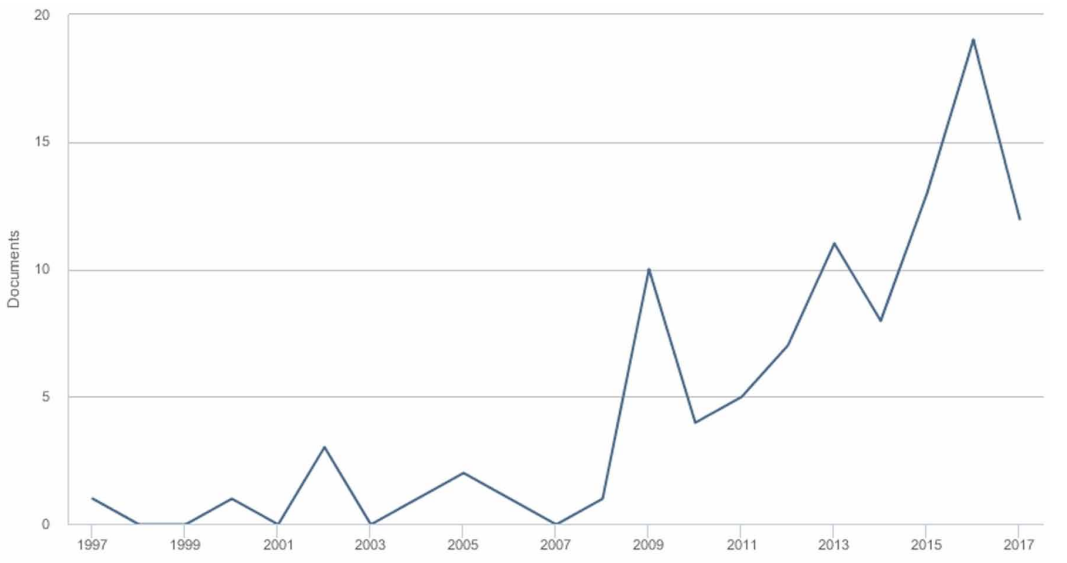
DATA ANALYSIS AND FINDINGS

The literature search process was done using keywords: "green procurement" or "sustainable procurement". The list of papers was downloaded using Scopus (https://www.scopus.com) which is the largest abstract and citation database for academic reputed scientific research journals, books and conference proceedings. Through strict screening, only journal papers were selected for conducting the review of literature. The data was obtained on Monday, 22nd January 2018 at 5 PM, South African time. Total 87 papers were found relevant for the study.

Figure 1 provides the publishing trend. The number of publishing went up from 2013 onward and significantly from year 2015.

Authors' further conducted an analysis to find out the number of journals which published green procurement articles. The result of this analysis is presented in Table 1. It can be seen that total 41 journals have published topic on green procurement or sustainable procurement. Total 87 papers have been published over a span of 20 years. However, the point to be noted from this analysis is that Journal of Cleaner Production alone account for 26.43 percent of the total publications.

Figure 1. Paper publishing trends (Source: Author own compilation)



We further performed the key word analysis (refer Table 2) for identifying the most popular keywords used in green procurement or sustainable procurement research. We found a total of 434 key words used in 87 research papers. Most of the keywords appeared multiple times in different publications in the last ten years. After sorting we found that actually there were 290 keywords. We tabulated the top ten popular keywords having highest frequency of appearance in various research publications.

Lastly, we discuss the various organizational theories applied in the area of sustainable procurement. Some of the seminal papers which discussed organization theories in details are Jänicke & Jacob, (2006); Sarkis et al., (2011); Jayaram & Avittathur, (2015); Spina et al., (2016); Dubey et al., (2017).

Organization theories are useful in explaining behavior of firms the design and its structure. Organization theory can also be extended to study the supply chain relationship linking firms (Sarkis et al., 2011).

Jänicke & Jacob, (2006) talked on Ecological modernization theory and environmental policies.

Also, the study by Sarkis et al. (2011) discusses nine theories such as Complexity; Ecological Modernization; Information; Institutional; Resource Based View; Resource Dependence; Social Network; Stakeholder; and Transaction Cost Economics theories.

The study by Spina et al., (2016) assesses the role of External Grand theories in purchasing and supply management. They found that the most common External Grand theories applied in PSM are Transaction Cost Economics, Resource Based View, Knowledge Based theory, Contingency theory, Game theory, Resource Dependency theory, Social exchange theory, Agency theory, Institution theory, Network theory, Information processing theory and Dynamic Capabilities theory.

Jayaram & Avittathur, (2015) further presented ten relevant theories for application in GSCM such as Complexity theory, Ecological Modernization theory, Information theory, Institutional theory, Resource Based view, Resource Dependence theory, Social Network theory, Stakeholder theory, Transaction Cost Economics and Grounded theory.

The above studies are considered seminal papers in the area of sustainable procurement theory building.

Table 1. Volume of publications in last twenty years

Journal	1997	2002	2005	2006	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Action Learning: Research and Practice												1		1
Business Strategy and the Environment							1							1
Construction Economics and Building											1			1
Construction Management and Economics		1												1
Corporate Environmental Strategy		1												1
Corporate Social Responsibility and Environmental Management			1	1										2
Decision Sciences Journal of Innovative Education									1					1
Developments in Corporate Governance and Responsibility												1		1
Engineering, Construction and Architectural Management	1				1					1				3
Industrial and Commercial Training													1	1
Industrial Marketing Management								1		1				2
Information Technology and Management											1			1
Innovation											1			1
International Journal of Enterprise Information Systems											1			1
International Journal of Innovation and Sustainable Development						1								1
International Journal of Logistics Management													1	1
International Journal of Operations and Production Management							1				1			2
International Journal of Procurement Management					1			2	2			2	1	8
International Journal of Production Economics								1			1			2
International Journal of Production Research								1	1	1		1		4

continued on following page

Table 1. Continued

Journal	1997	2002	2005	2006	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
International Journal of Project Management									1					1
Journal of Business Ethics												1		1
Journal of Change Management									1					1
Journal of Cleaner Production		1			1				3	1	4	6	7	23
Journal of Consumer Policy												1		1
Journal of Corporate Real Estate													1	1
Journal of Human Resources in Hospitality and Tourism									1					1
Journal of Industrial Engineering and Management										1				1
Journal of Management Education					1									1
Journal of Purchasing and Supply Management								1		2	1	1		5
Management Research Review						1								1
Periodica Polytechnica Social and Management Sciences										1				1
Proceedings of Institution of Civil Engineers: Management, Procurement and Law					1				1			1		3
Production and Operations Management												1		1
Public Management Review												1		1
Public Money and Management								1			1			2
Society and Economy							1							1
Supply Chain Management					2									2
Technology in Society						1								1
Vision													1	1
Worldwide Hospitality and Tourism Themes							1							1
Total	1	3	1	1	7	3	4	7	11	8	12	17	12	87

Table 2. Keywords

Keywords	Count
Green procurement	24
Sustainable procurement	22
Sustainability	16
Procurement	10
Public procurement	6
Environmental management	5
Structural equation modelling	5
Sustainable public procurement	5
Barriers	4
Drivers	4

While searching prior literature we also found that Holt & Ghobadian (2009) and Koh et al., (2012) are the only studies where attempt was taken to work on Systems theory by providing the missing connection in sustainability theory building. Therefore, the contribution to Systems theory in the field of green procurement has been under researched.

While conducting review of existing GSCM theories Dubey et al., (2017) talked about thirteen theories such as Complexity theory, Resource Based view, Transaction Cost analysis, Knowledge Based view, Strategic Cost theory, Agency theory, Institutional theory, Systems theory, Network Perspective, Ecological Modernization theory, Information theory, Resource Dependence theory and Social Network theory.

The paper written by Dubey et al., (2017) has adopted a noble approach by integrating Knowledge Based theory and Systems theory to propose a theoretical framework. They have also indicated that past research works in theory building either focused on macro level or at the micro level theoretical application on sustainability research.

SYNOPTIC OVERVIEW OF SELECTED SPECIAL ISSUE PAPERS

For this special issue we have accepted total nine papers which focus on multiple dimensions of sustainable or green procurement. The first paper identified the contextual relationship among barriers to sustainable procurement practices. The second paper studied the impact of agility, lean and sustainable procurement on sustainable manufacturing in manufacturing industries. The third paper presents a review on cost of quality. The fourth paper deals with sustainability appraisement of industrial robots by GRA for real automation environment. The fifth paper presents a SAW mechanism for investigating the status of industrial robots under comprehensive sustainable aspects. The sixth paper deals with estimation and forecasting of cultivation of Jatropha plant as a sustainable bio fuel feedstock. The seventh paper provides an evaluation of Anti-Cancer Oncology Medicines Pharmaceutical Companies under Chain of Sustainable Procurement. The eight paper provides a review on entrepreneurial ecosystem. The final paper deals with performance measurement of medicines delivery by pharmaceutical companies under chain of sustainable procurement.

CONCLUSION

This special issue will serve as a handbook for developing green/sustainable procurement strategy and further implementing it in the supply chain network. Since sustainable procurement involves cooperation, collaboration and coordination of multiple actors in the supply chain network, it is important that goals are set and regular reviews are done to achieve the milestones. The papers accepted for this special issue covers multiple dimensions of sustainable procurement. However, there are still many problems which need to be dealt with for extending the knowledge base. Few of the future research directions are:

- How sustainable procurement can be transformed into smart sustainable procurement.
- Determine the supplier selection and evaluation process in sustainable supplier development programs.
- Explore ethical procurement practices, codes of conduct, fair trade, ethical buying behaviour in sustainable procurement.
- Identify the barriers for international green supplier's capacity development and innovativeness.
- Develop supplier relationship strategies for different green purchase categories (strategic items, leverage items, bottleneck items and non-critical items).
- Identify the human factors influencing flexible sustainable procurement.
- Explore the extent of flexible sustainable supply network resilience under the influence of major supply disruption.
- Explore how big data can be used to enhance sustainable supply networks performance.
- Training requirement to bridge knowledge gaps of purchasing managers in small medium enterprises for designing sustainable supply networks in uncertain environments.

PAPERS CONSIDERED FOR REVIEW

Ahsan, K., & Rahman, S. (2017). Green public procurement implementation challenges in Australian public healthcare sector. *Journal of Cleaner Production*, *152*, 181-197. doi:10.1016/j.jclepro.2017.03.055

Akenroye, T. O., Oyegoke, A. S., & Eyo, A. B. (2013). Development of a framework for the implementation of green public procurement in Nigeria. *International Journal of Procurement Management*, *6*(1), 1-23. doi:10.1504/IJPM.2013.050607

Aktin, T., & Gergin, Z. (2016). Mathematical modelling of sustainable procurement strategies: three case studies. *Journal of Cleaner Production*, *113*, 767-780. doi:10.1016/j.jclepro.2015.11.057

Mosgaard, M. A. (2015). Improving the practices of green procurement of minor items. *Journal of Cleaner Production*, *90*, 264-274. doi:10.1016/j.jclepro.2014.11.077

Amarah, B., & Langston, C. (2017). Development of a triple bottom line stakeholder satisfaction model. *Journal of Corporate Real Estate*, *19*(1), 17-35. doi:10.1108/JCRE-03-2016-0017

Appolloni, A., Sun, H., Jia, F., & Li, X. (2014). Green Procurement in the private sector: a state of the art review between 1996 and 2013. *Journal of Cleaner Production*, *85*, 122-133. doi:10.1016/j.jclepro.2014.08.106

Aragão, C. G., & Jabbour, C. J. C. (2017). Green training for sustainable procurement? Insights from the Brazilian public sector. *Industrial and Commercial Training*, *49*(1), 48-54. doi:10.1108/ICT-07-2016-0043

Aritua, B., Male, S., & Bower, D. A. (2009). Defining the intelligent public sector construction procurement client. *Management, Procurement and Law*, *162*(2), 75-82. doi:10.1680/mpal.2009.162.2.75

Bag, S. (2017a). Identification of Green Procurement Drivers and Their Interrelationship Using Total Interpretive Structural Modelling. *Vision*, *21*(2), 129-142. doi:10.1177/0972262917700990

Bag, S. (2017b). Comparison of green procurement framework using fuzzy TISM and fuzzy DEMATEL methods. *International Journal of Procurement Management*, *10*(5), 600-638. doi:10.1504/IJPM.2017.086403

Bag, S. (2016). Green strategy, supplier relationship building and supply chain performance: Total interpretive structural modelling approach. *International Journal of Procurement Management*, *9*(4), 398-426. doi:10.1504/IJPM.2016.077702

Beer, S., & Lemmer, C. (2011). A critical review of "green" procurement: Life cycle analysis of food products within the supply chain. *Worldwide Hospitality and Tourism Themes*, *3*(3), 229-244. doi:10.1108/17554211111142194

Blome, C., Hollos, D., & Paulraj, A. (2014). Green procurement and green supplier development: antecedents and effects on supplier performance. *International Journal of Production Research*, *52*(1), 32-49. doi:10.1080/00207543.2013.825748

Boak, G., Watt, P., Gold, J., Devins, D., & Garvey, R. (2016). Procuring a sustainable future: an action learning approach to the development and modelling of ethical and sustainable procurement practices. *Action Learning: Research and Practice*, *13*(3), 204-218. doi:10.1080/14767333.2016.1215290

Bohari, A. A. M., Skitmore, M., Xia, B., & Teo, M. (2017). Green oriented procurement for building projects: Preliminary findings from Malaysia. *Journal of Cleaner Production*, *148*, 690-700. doi:10.1016/j.jclepro.2017.01.141

Bradley, P. (2016). Environmental impacts of food retail: a framework method and case application. *Journal of Cleaner Production*, *113*, 153-166. doi:10.1016/j.jclepro.2015.09.085

Brammer, S., & Walker, H. (2011). Sustainable procurement in the public sector: an international comparative study. *International Journal of Operations & Production Management*, *31*(4), 452-476. doi:10.1108/01443571111119551

Brindley, C., & Oxborrow, L. (2014). Aligning the sustainable supply chain to green marketing needs: A case study. *Industrial Marketing Management*, *43*(1), 45-55. doi:10.1016/j.indmarman.2013.08.003

Broomes, V. (2016). Organisational Governance and Strategic CSR to Strengthen Local Supply Chains–Navigating the Maze. In *Accountability and Social Responsibility: International Perspectives*. *9*, 3-21. doi:10.1108/S2043-052320160000009001

Butt, A. A., Toller, S., & Birgisson, B. (2015). Life cycle assessment for the green procurement of roads: a way forward. *Journal of Cleaner Production*, *90*, 163-170. doi:10.1016/j.jclepro.2014.11.068

Chiarini, A., Opoku, A., & Vagnoni, E. (2017). Public healthcare practices and criteria for a sustainable procurement: A comparative study between UK and Italy. *Journal of Cleaner Production*, *162*, 391-399. doi:10.1016/j.jclepro.2017.06.027

Crespin-Mazet, F., & Dontenwill, E. (2012). Sustainable procurement: Building legitimacy in the supply network. *Journal of Purchasing and Supply Management*, *18*(4), 207-217. doi:10.1016/j.pursup.2012.01.002

Dalgliesh, C. D., Bowen, P. A., & Hill, R. C. (1997). Environmental sustainability in the delivery of affordable housing in South Africa. *Engineering, Construction and Architectural Management*, *4*(1), 23-39. doi:10.1108/eb021038

Diófási, O., & Valkó, L. (2014). Step by step towards mandatory green public procurement. *Periodica Polytechnica. Social and Management Sciences*, *22*(1), 21. doi:10.3311/PPso.2151

Dubey, R., Bag, S., Ali, S. S., & Venkatesh, V. G. (2013). Green purchasing is key to superior performance: an empirical study. *International Journal of Procurement Management*, *6*(2), 187-210. doi:10.1504/IJPM.2013.052469

Erridge, A., & Hennigan, S. (2012). Sustainable procurement in health and social care in Northern Ireland. *Public Money & Management*, *32*(5), 363-370. doi:10.1080/09540962.2012.703422

Esfahbodi, A., Zhang, Y., Watson, G., & Zhang, T. (2017). Governance pressures and performance outcomes of sustainable supply chain management–An empirical analysis of UK manufacturing industry. *Journal of Cleaner Production*, *155*, 66-78. doi:10.1016/j.jclepro.2016.07.098

Faith-Ell, C. (2005). The introduction of environmental requirements for trucks and construction vehicles used in road maintenance contracts in Sweden. *Corporate Social Responsibility and Environmental Management*, *12*(2), 62-72. doi:10.1002/csr.72

Fernández-Viñé, M. B., Gómez-Navarro, T., & Capuz-Rizo, S. F. (2013). Assessment of the public administration tools for the improvement of the eco-efficiency of Small and Medium Sized Enterprises. *Journal of Cleaner Production*, *47*, 265-273. doi:10.1016/j.jclepro.2012.08.026

Fet, A., Michelsen, O., & Boer, L. (2011). Green public procurement in practice—the case of Norway. *Society and Economy*, *33*(1), 183-198. doi:10.1556/SocEc.33.2011.1.13

Gan, V. J., Cheng, J. C., Lo, I. M., & Chan, C. M. (2017). Developing a CO2-e accounting method for quantification and analysis of embodied carbon in high-rise buildings. *Journal of Cleaner Production*, *141*, 825-836. doi:10.1016/j.jclepro.2016.09.126

Ghadimi, P., Azadnia, A. H., Heavey, C., Dolgui, A., & Can, B. (2016). A review on the buyer–supplier dyad relationships in sustainable procurement context: past, present and future. *International Journal of Production Research*, *54*(5), 1443-1462. doi:10.1080/00207543.2015.1079341

Goldschmidt, K., Harrison, T., Holtry, M., & Reeh, J. (2013). Sustainable procurement: integrating classroom learning with university sustainability programs. *Decision Sciences Journal of Innovative Education*, *11*(3), 279-294. doi:10.1111/dsji.12007

Grandia, J. (2016). Finding the missing link: examining the mediating role of sustainable public procurement behaviour. *Journal of Cleaner Production*, *124*, 183-190. doi:10.1016/j.jclepro.2016.02.102

Grandia, J. (2015). The role of change agents in sustainable public procurement projects. *Public Money & Management*, *35*(2), 119-126. doi:10.1080/09540962.2015.1007706

Grandia, J., Steijn, B., & Kuipers, B. (2015). It is not easy being green: increasing sustainable public procurement behaviour. *Innovation: The European Journal of Social Science Research*, *28*(3), 243-260. doi:10.1080/13511610.2015.1024639

Guenther, E., Hueske, A. K., Stechemesser, K., & Buscher, L. (2013). The 'why not'–perspective of green purchasing: a multilevel case study analysis. *Journal of Change Management*, *13*(4), 407-423. doi:10.1080/14697017.2013.851950

Guenther, E., Scheibe, L., & Greschner Farkavcová, V. (2010). "The Hurdles Analysis" as an instrument for improving sustainable stewardship. *Management Research Review*, *33*(4), 340-356. doi:10.1108/01409171011030453

Günther, E., & Scheibe, L. (2006). The hurdle analysis. A self-evaluation tool for municipalities to identify, analyse and overcome hurdles to green procurement. *Corporate Social Responsibility and Environmental Management*, *13*(2), 61-77. doi:10.1002/csr.92

Hall, P., Löfgren, K., & Peters, G. (2016). Greening the street-level procurer: challenges in the strongly decentralized Swedish system. *Journal of Consumer Policy*, *39*(4), 467-483. doi:10.1007/s10603-015-9282-8

Hayami, H., Nakamura, M., & Nakamura, A. O. (2015). Economic performance and supply chains: The impact of upstream firms waste output on downstream firms performance in Japan. *International Journal of Production Economics*, *160*, 47-65. doi:10.1016/j.ijpe.2014.09.012

Hollos, D., Blome, C., & Foerstl, K. (2012). Does sustainable supplier co-operation affect performance? Examining implications for the triple bottom line. *International Journal of Production Research*, *50*(11), 2968-2986. doi:10.1080/00207543.2011.582184

Jefferies, M., John Brewer, G., & Gajendran, T. (2014). Using a case study approach to identify critical success factors for alliance contracting. *Engineering, Construction and Architectural Management*, *21*(5), 465-480. doi:10.1108/ECAM-01-2012-0007

Jefferies, M., & McGeorge, W. D. (2009). Using public-private partnerships (PPPs) to procure social infrastructure in Australia. *Engineering, Construction and Architectural Management*, *16*(5), 415-437. doi:10.1108/09699980910988348

Jelodar, M. B., Yiu, T. W., & Wilkinson, S. (2015). Systematic representation of relationship quality in conflict and dispute: For construction projects. *Construction Economics and Building*, *15*(1), 89-103. doi:10.5130/ajceb.v15i1.4281

Lenferink, S., Tillema, T., & Arts, J. (2013). Towards sustainable infrastructure development through integrated contracts: Experiences with inclusiveness in Dutch infrastructure projects. *International Journal of Project Management*, *31*(4), 615-627. doi:10.1016/j.ijproman.2012.09.014

Li, C. (2013). An integrated approach to evaluating the production system in closed-loop supply chains. *International Journal of Production Research*, *51*(13), 4045-4069. doi:10.1080/00207543.2013.774467

Lo, S. F. (2010). Global warming action of Taiwan's semiconductor/TFT-LCD industries: How does voluntary agreement work in the IT industry? *Technology in Society*, *32*(3), 249-254. doi:10.1016/j.techsoc.2010.07.007

Mansi, M., & Pandey, R. (2016). Impact of demographic characteristics of procurement professionals on sustainable procurement practices: Evidence from Australia. *Journal of Purchasing and Supply Management*, *22*(1), 31-40. doi:10.1016/j.pursup.2015.06.001

Mansi, M. (2015). Sustainable procurement disclosure practices in central public sector enterprises: Evidence from India. *Journal of Purchasing and Supply Management*, *21*(2), 125-137. doi:10.1016/j.pursup.2014.12.002

McMurray, A. J., Islam, M. M., Siwar, C., & Fien, J. (2014). Sustainable procurement in Malaysian organizations: Practices, barriers and opportunities. *Journal of Purchasing and Supply Management*, *20*(3), 195-207. doi:10.1016/j.pursup.2014.02.005

Meehan, J., & Bryde, D. J. (2015). A field-level examination of the adoption of sustainable procurement in the social housing sector. *International Journal of Operations & Production Management*, *35*(7), 982-1004. doi:10.1108/IJOPM-07-2014-0359

Meehan, J., & Bryde, D. J. (2014). Procuring sustainably in social housing: The role of social capital. *Journal of Purchasing and Supply Management*, *20*(2), 74-81. doi:10.1016/j.pursup.2014.01.002

Meehan, J., & Bryde, D. (2011). Sustainable procurement practice. *Business Strategy and the Environment*, *20*(2), 94-106. doi:10.1002/bse.678

Mosgaard, M., Riisgaard, H., & Huulgaard, R. D. (2013). Greening non-product-related procurement–when policy meets reality. *Journal of Cleaner Production*, *39*, 137-145. doi:10.1016/j.jclepro.2012.08.018

Nagel, M. H. (2003). Managing the environmental performance of production facilities in the electronics industry: more than application of the concept of cleaner production. *Journal of Cleaner Production*, *11*(1), 11-26. doi:10.1016/S0959-6526(02)00021-5

Odeyale, S. O. (2014). Performance appraisal for green/environmental friendliness of a supply chain department. *Journal of Industrial Engineering and Management*, *7*(5), 1316-1333. doi:10.3926/jiem.1057

Offei, I., Kissi, E., & Badu, E. (2016). Public procurement policies and strategies for capacity building of SME construction firms in Ghana. *International Journal of Procurement Management*, *9*(4), 455-472. doi:10.1504/IJPM.2016.077705

Oruezabala, G., & Rico, J. C. (2012). The impact of sustainable public procurement on supplier management—The case of French public hospitals. *Industrial Marketing Management*, *41*(4), 573-580. doi:10.1016/j.indmarman.2012.04.004

Pacheco-Blanco, B., & Bastante-Ceca, M. J. (2016). Green public procurement as an initiative for sustainable consumption. An exploratory study of Spanish public universities. *Journal of Cleaner Production*, *133*, 648-656. doi:10.1016/j.jclepro.2016.05.056

Perera, C., Auger, P., & Klein, J. (2016). Green consumption practices among young environmentalists: a practice theory perspective. *Journal of Business Ethics*, 1-22. doi:10.1007/s10551-016-3376-3

Preuss, L. (2009). Addressing sustainable development through public procurement: the case of local government. *Supply Chain Management: An International Journal*, *14*(3), 213-223. doi:10.1108/13598540910954557

Suresh, S., Renukappa, S., Akintoye, A., & Egbu, C. (2016). Sustainable procurement strategies for competitive advantage: an empirical study. *Proceedings of the Institution of Civil Engineers-Management, Procurement and Law*, *169*(1), 16-25. doi:10.1680/jmapl.15.00006

Rietbergen, M. G., & Blok, K. (2013). Assessing the potential impact of the CO2 Performance Ladder on the reduction of carbon dioxide emissions in the Netherlands. *Journal of Cleaner production*, *52*, 33-45. doi:10.1016/j.jclepro.2013.03.027

Roman, A. V. (2017). Institutionalizing sustainability: A structural equation model of sustainable procurement in US public agencies. *Journal of Cleaner production*, *143*, 1048-1059. doi:10.1016/j.jclepro.2016.12.014

Routroy, S., & Pradhan, S. K. (2012). Framework for green procurement: a case study. *International Journal of Procurement Management*, *5*(3), 316-336. doi:10.1504/IJPM.2012.047170

Ruparathna, R., & Hewage, K. (2015). Sustainable procurement in the Canadian construction industry: current practices, drivers and opportunities. *Journal of Cleaner Production*, *109*, 305-314. doi:10.1016/j.jclepro.2015.07.007

Sambhanthan, A., & Potdar, V. (2015). Green Business Practices for Software Development Companies: An Explorative Text Analysis of Business Sustainability Reports. *International Journal of Enterprise Information Systems*, *11*(3), 13-26. doi:10.4018/IJEIS.2015070102

Shen, L., Zhang, Z., & Zhang, X. (2017). Key factors affecting green procurement in real estate development: a China study. *Journal of Cleaner Production*, *153*, 372-383. doi:10.1016/j.jclepro.2016.02.021

Sheu, J. B. (2016). Buyer Behavior in Quality-Dominated Multi-Sourcing Recyclable-Material Procurement of Green Supply Chains. *Production and Operations Management*, *25*(3), 477-497. doi:10.1111/poms.12263

Shi, P., Yan, B., Shi, S., & Ke, C. (2015). A decision support system to select suppliers for a sustainable supply chain based on a systematic DEA approach. *Information Technology and Management*, *16*(1), 39-49. doi:10.1007/s10799-014-0193-1

Smith, J., Andersson, G., Gourlay, R., Karner, S., Mikkelsen, B. E., Sonnino, R., & Barling, D. (2016). Balancing competing policy demands: the case of sustainable public sector food procurement. *Journal of Cleaner Production*, *112*, 249-256. doi:10.1016/j.jclepro.2015.07.065

Song, H., Yu, K., & Zhang, S. (2017). Green procurement, stakeholder satisfaction and operational performance. *The International Journal of Logistics Management*, *28*(4), 1054-1077. doi:10.1108/IJLM-12-2015-0234

Sourani, A. And Sohail., K. (2013). Enabling sustainable construction in UK public procurement. Proceedings of Institution of Civil Engineers: Management, Procurement and Law, 166(6), 297-312. doi:10.1680/mpal.12.00022

Sterner, E. (2002). 'Green procurement'of buildings: a study of Swedish clients' considerations. *Construction Management & Economics*, *20*(1), 21-30. doi:10.1080/01446190110093560

Sakuragi, Y. (2002). A new partnership model for Japan: Promoting a circular flow society. *Corporate Environmental Strategy*, *9*(3), 292-296. doi:10.1016/S1066-7938(02)00072-6

Townsend, J., & Barrett, J. (2015). Exploring the applications of carbon footprinting towards sustainability at a UK university: reporting and decision making. *Journal of Cleaner Production*, *107*, 164-176. doi:10.1016/j.jclepro.2013.11.004

Varnäs, 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*(13), 1214-1222. doi:10.1016/j.jclepro.2009.04.001

Walker, H., & Brammer, S. (2012). The relationship between sustainable procurement and e-procurement in the public sector. *International Journal of Production Economics*, *140*(1), 256-268. doi:10.1016/j.ijpe.2012.01.008

Walker, H., & Phillips, W. (2009). Sustainable procurement: emerging issues. *International Journal of Procurement Management*, *2*(1), 41-61. doi:10.1504/IJPM.2009.021729

Walker, H., & Brammer, S. (2009). Sustainable procurement in the United Kingdom public sector. *Supply Chain Management: An International Journal*, *14*(2), 128-137. doi:10.1108/13598540910941993

Walker, H. L., Gough, S., Bakker, E. F., Knight, L. A., & McBain, D. (2009). Greening operations management: An online sustainable procurement course for practitioners. *Journal of Management Education*, *33*(3), 348-371. doi:10.1177/1052562908323190

Whatling, D. R., Hedges, P., Brown, R., & Fermor, P. (2010). Corporate responsibility reporting of biodiversity in the supply chain. *International Journal of Innovation and Sustainable Development*, *5*(1), 51-64. doi:10.1504/IJISD.2010.034557

Whitelock, V. G. (2012). Alignment between green supply chain management strategy and business strategy. *International Journal of Procurement Management, 5*(4), 430-451. doi:10.1504/IJPM.2012.047198

Wong, J. K. W., San Chan, J. K., & Wadu, M. J. (2016). Facilitating effective green procurement in construction projects: An empirical study of the enablers. *Journal of Cleaner Production*, *135*, 859-871. doi:10.1016/j.jclepro.2016.07.001

Yen, C. H., Chen, C. Y., & Teng, H. Y. (2013). Perceptions of environmental management and employee job attitudes in hotel firms. *Journal of Human Resources in Hospitality & Tourism*, *12*(2), 155-174. doi:10.1080/15332845.2013.752709

Young, S., Nagpal, S., & Adams, C. A. (2016). Sustainable Procurement in Australian and UK Universities. *Public Management Review*, *18*(7), 993-1016. doi:10.1080/14719037.2015.1051575

ACKNOWLEDGMENTS

The Guest Editors express their appreciation to all the authors who submitted their manuscripts under this special issue and reviewers for their timely and critical feedback which helped to create a special issue on Bridging sustainable procurement and Organizational theories. This special issue would not have been a reality without the kind and generous support of Professor Elias G. Carayannis, the Editor in-Chief of the International Journal of Social Ecology and Sustainable Development (IJSESD).

REFERENCES

Dubey, R., Gunasekaran, A., Childe, S. J., Papadopoulos, T., Fosso-Wamba, S., & Song, M. (2016). Towards a theory of sustainable consumption and production: Constructs and measurement. *Resources, Conservation and Recycling*, *106*, 78–89. doi:10.1016/j.resconrec.2015.11.008

Dubey, R., Gunasekaran, A., & Papadopoulos, T. (2017). Green supply chain management: Theoretical framework and further research directions. *Benchmarking: An International Journal*, *24*(1), 184–218. doi:10.1108/BIJ-01-2016-0011

Holt, D., & Ghobadian, A. (2009). An empirical study of green supply chain management practices amongst UK manufacturers. *Journal of Manufacturing Technology Management*, *20*(7), 933–956. doi:10.1108/17410380910984212

Jänicke, M., & Jacob, K. (2006). *Environmental governance in global perspective. In New Approaches to Ecological and Political Modernisation*. Berlin: Forschungsstelle für Umweltpolitik. Freie Universität Berlin.

Jayaram, J., & Avittathur, B. (2015). Green supply chains: A perspective from an emerging economy. *International Journal of Production Economics*, *164*, 234–244. doi:10.1016/j.ijpe.2014.12.003

Koh, S. C. L., Gunasekaran, A., & Tseng, C. S. (2012). Cross-tier ripple and indirect effects of directives WEEE and RoHS on greening a supply chain. *International Journal of Production Economics*, *140*(1), 305–317. doi:10.1016/j.ijpe.2011.05.008

Mani, V., Gunasekaran, A., Papadopoulos, T., Hazen, B., & Dubey, R. (2016). Supply chain social sustainability for developing nations: Evidence from India. *Resources, Conservation and Recycling*, *111*, 42–52. doi:10.1016/j.resconrec.2016.04.003

Sarkis, J., Zhu, Q., & Lai, K. H. (2011). An organizational theoretic review of green supply chain management literature. *International Journal of Production Economics*, *130*(1), 1–15. doi:10.1016/j.ijpe.2010.11.010

Spina, G., Caniato, F., Luzzini, D., & Ronchi, S. (2016). Assessing the use of external grand theories in purchasing and supply management research. *Journal of Purchasing and Supply Management*, *22*(1), 18–30. doi:10.1016/j.pursup.2015.07.001

Sunil Luthra is working Assistant Professor in State Institute of Engineering and Technology (Formerly known as Government Engineering College), Nilokheri, Haryana, India. He completed his PhD degree in Mechanical Engineering from National Institute of Technology Kurukshetra, India. He did his master's in mechanical engineering with specialization in CAD/CAM & Robotics from Thapar University, Patiala, India and bachelor's degree in mechanical engineering from Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, India. He has been associated teaching in the various fields of Mechanical Engineering and Production and Industrial Engineering for over fifteen years. He has contributed over 100 research papers in International referred and National journals, and conferences at International and National Level. His research papers (SCI/SSCI/ESCI indexed publications: 30) have appeared in high ranking journals (Total Impact Factor: 115.639) like International Journals (Renewable and Sustainable Energy Reviews, Energy-An International Journal, International Journal of Production Economics, Journal of Cleaner Production, Resources, Conservation and Recycling, Resources Policy, Transportation Research-Part D, Production Planning & Control, Benchmarking: An International Journal, International Journal of Logistics Systems and Management, Journal of Retailing and Consumer Services, Journal of Advances in Management Research, Journal of Industrial Engineering & Management, Journal of Industrial Engineering International and International Journal of Business Excellence etc.); National Journals (Productivity- National Productivity Council of India Journal, Udyog Pragati, Industrial Engineering- Indian Institution of Industrial Engineering Journal etc.); and Conferences of Repute (NITIE_POMS Conference Manufacturing Excellence, 7th International Conference on Contemporary Business 2014 and 14th Global Conference on Flexible Systems Management etc). He has authored two books titled "Enabling of Green Supply Chain Management Implementation in Indian Manufacturing Industry", published by Create Space Independent Publishers, U.S.A. and "Decision modeling for sustainability in supply Chains", published by LAP Lambert Academic Publishing, Germany.