

Green marketing and its impact on supply chain management in industrial markets

Hing Kai Chan ^{a,*}, Hongwei He ^b, William Y.C. Wang ^c

^a Norwich Business School, University of East Anglia, Norwich, UK

^b Warwick Business School, University of Warwick, Coventry, UK

^c Department of Business Information Systems, Auckland University of Technology, New Zealand

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ABSTRACT

Green marketing and green supply chain have been drawing the attention of both academics and practitioners in the recent decade. However, no holistic framework has been developed on how to build green industrial brands and industrial corporate brands. Whether or not sustainable/green supply chains can be integrated with green industrial marketing in building greener organizations and industrial brands is still unclear. In addition, little is known on the factors on green new industrial product development or how green new industrial products are adopted by organizations. Furthermore, we know little of whether and how green supply chain enables green new industrial product development. This special issue aims at reflecting the most recent advances on green industrial marketing, green/sustainable supply chains and their interplay in green industrial branding, and to explore future research directions. The guest editors hope that the solicited papers can provide insights on the impacts of sustainable or green supply chains on marketing theory in industrial and business-to-business markets.

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1. Introduction

Green branding and sustainability have attracted much attention from both the practitioners and academics from different business disciplines, such as marketing, supply chain management, and information management. Despite the increasing salience for being greener and more sustainable (due to, for example, climate change and environmental legislation), no holistic framework exists on how to build green industrial brands and industrial corporate brands. Building strong green industrial brands requires not only green marketing, but also green operations and green supply chain management. In addition, globalization and international sourcing exert extra pressure and challenges on designing and implementing a truly green and sustainable supply chain from the global perspective.

Whether or not sustainable/green supply chains can be integrated with green industrial marketing in building greener organizations and industrial brands is still unclear. For example, how industrial organizations can make use of both supply chain sustainability and green industrial marketing to create a competitive edge in the marketplace and along the supply chain network is not well formulated. From operations and supply chain side, for example, the reduction of waste (such as operations efficiency, delivery and distribution network), which is the core principle of lean operations, could be considered as a form of sustainability. Advances in information technology can also help to reduce waste (e.g. papers and energy) to a certain

extent. A number of other tools such as life cycle assessment, eco-design for cradle-to-cradle product development, etc., are available. However, they are, including lean philosophy, usually not linked to industrial marketing. This is not surprising because the aforementioned tools or techniques are more visible internally than externally. From marketing perspective, for example, although green consumers and consumption have received some attention, little is known on the factors on green B2B marketing and green organizational purchase behavior. Better understanding on how and why organizations choose green suppliers has significant implications for green B2B marketing. Green industrial branding could be an important industrial marketing effort in conveying the capability of sustainability. However, further development in this regard is needed. In addition, green industrial branding requires green industrial product development. Little is known on the factors on green new industrial product development or how green new industrial products are adopted by organizations. Specifically, we know little of whether and how green supply chain enables green new industrial product development.

In this editorial, we first review some key literatures relating to green marketing strategy, green supply chain management, and the role of technology of in green management. We then introduce the articles appearing in this special issue.

2. Green marketing strategy

Green marketing and management is a strategic issue (Siegel, 2009), not only because being green makes a firm “good”, but also because being green pays (Ambec & Lanoie, 2008; Russo & Fouts, 1997). In addition, institutional and stakeholder pressures drive the adoption of green

* Corresponding author. Tel.: +44 1603 591388; fax: +44 1603 593343.

E-mail addresses: H.Chan@uea.ac.uk (H.K. Chan), hongwei.he@wbs.ac.uk (H. He), William.Wang@aut.ac.nz (W.Y.C. Wang).

marketing strategy (Cronin, Smith, Gleim, Ramirez, & Martinez, 2011; Sarkis, Gonzalez-Torre, & Adenso-Diaz, 2010). Integrating environmental issues into strategic marketing process has become essential, instead of voluntary, for firms to achieve institutional legitimacy and competitive advantage (Handelman & Arnold, 1999). Green/environmental marketing strategy has garnered considerable academic attention over the last two decades. Menon and Menon (1997, p. 54) proposed that an effective green marketing strategy should be endorsed by the principles of enviropreneurial marketing, which refers to “the process for formulating and implementing entrepreneurial and environmentally beneficial marketing activities with the goal of creating revenue by providing exchanges that satisfy a firm’s economic and social performance objectives.” According to them, enviropreneurial marketing is featured by an innovation and technology solution to meet the environmental needs, an entrepreneurial orientation, and confluence of social, environmental and economic performances. Firms differ in terms of their degrees of adopting enviropreneurial marketing.

Banerjee, Iyer, and Kashyap (2003) expanded Menon and Menon’s (1997) initial conceptualization to incorporate both environmental orientation and environmental strategy, and develop the concept of corporate environmentalism. Corporate environmentalism includes two core elements: environmental orientation and environmental strategy. Environmental orientation refers to senior managers’ recognition of the importance of environmental issues facing their companies; whilst environmental strategy refers to the extent to which environmental issues are integrated with a firm’s strategic plans (Banerjee et al., 2003). According to Banerjee et al. (2003), environmental orientation positively impacts on environmental strategy, which in turn has a positive impact on performance under some conditions (Menguc & Ozanne, 2005). More recently, Chan (2010) found that the impact of environmental orientation on environmental strategy is positively moderated by regulatory stakeholder influence.

Initially Menon and Menon (1997) offered a conceptual framework on the antecedents and outcomes of enviropreneurial marketing. They suggested that enviropreneurial marketing can impact on business performance and corporate reputation, and such effects tend to be stronger if the firm’s industry has a better reputation. They further argued that a firm’s enviropreneurial marketing would be driven higher by the firm’s internal policy (e.g., top management environmental sensibility) and external policy (customer environmental sensibility, regulatory intensity), internal structure (e.g. centralization of decision making) and external economy (e.g., competitive intensity). However, these were conceptual propositions with no support from empirical evidence. Baker and Sinkula (2005) developed a measure for enviropreneurial marketing and empirically found that enviropreneurial marketing has a positive impact on firms’ capabilities, such as new product development success. Banerjee et al. (2003) identified and empirically tested a similar set of antecedents of corporate environmentalism. These antecedents include top management commitment, public concerns, regulatory forces and so on. They also found that industry sector (high vs. moderate environmental impact sectors) moderates the impacts of some corporate environmentalism’s antecedents. Both Menon and Menon (1997) and Banerjee et al. (2003) stressed the important role of top management team, which suggests the importance of leadership in adopting green marketing strategy. Indeed, Egri and Herman (2000) found that leaders’ personal values (e.g., more eco-centric, openness to change, and self-transcendent) and transformational leadership style have a positive impact of a firm’s environmental strategy.

3. Green supply chain management

A supply chain can be defined as a network of companies working together towards the goals (e.g. customer service, fulfilment and so on) of the whole supply chain (Chan & Chan, 2010). Supply chain

management is thus highly coupled to resources allocation and hence a variety of optimisation techniques can be found in the literature to aid decision-making processes (Chan, 2011). Having said that, the interface between marketing and supply chain management cannot be overlooked (Lambert & Cooper, 2000). For example, Jüttner, Christopher and Baker (2007) examined how to integrate marketing and supply chain activities from a demand chain point of view. The objective of the paper is to propose a new business model which can add values along the chain. By the same token, green supply chain management (e.g. Lamming & Hampson, 1996) and green marketing (e.g. Cronin et al., 2011) cannot be considered separately. Nevertheless, the interfaces between green supply chain research and green marketing are rather unclear. This is particularly obvious if the effort devoted to green supply chain management results in marginal benefits only (e.g. Côté, Lopez, Marche, Perron and Wright, 2008). Below are summaries of some relevant research themes in order to support this though:

3.1. Corporate performance

Most green supply chain management studies are coupled with corporate performance and hence attempt to conclude that green supply chain can influence companies’ profit or even competitive advantages (e.g. Zhu & Sarkis, 2004). Bowen, Cousins, Lamming, and Faruk (2001) argued that financial incentive is the major driver force for implementing green supply chain. Rao and Holt (2005) investigated the relationship between green supply chain management practices and firms’ competitiveness as well as economic performance, and they confirmed that a positive relationship exists. Chiou, Chan, Lettice, and Chung (2011) also reach a similar conclusion although their study focuses only on the Taiwanese market. Vachon and Klassen (2008) concluded a correlation exists between environmental performance and competitive advantage in their survey. Notwithstanding the huge amount of studies in the literature in relation to the above, the link between green supply chain management activities, for example green supplier management (e.g. Bai & Sarkis, 2010), green purchasing (e.g. Green, Morton, & New, 1998) and green marketing activities, for example green branding, seems missing.

3.2. Product development

Green product development is also found to be coupled with firms’ performance (e.g. Lau, Tang, & Yam, 2010). Particularly, Chen, Lai, and Wen (2006) found that green product and green manufacturing process innovations are positively associated with corporate competitive advantage. However, results from some studies are conservative on this aspect (e.g. Ragatz, Handfield, & Petersen, 2002). Extending this into the debate around integrating green supply chain management and green marketing, it is therefore important to understand the interaction and possible overlaps between two practices. However, green product development is not a straightforward analysis and hence some scientific tools are proposed in order to quantify such effort from environmental conscious perspective. For example, Yung et al. (2011) proposed a life-cycle approach to analyze the green product development options of an electronic product. However, such approach is perhaps too tedious in terms of data collection, and is difficult to link to green marketing effort as the analysis is not easy to be presented to the customers. In addition, this method is mainly employed at product level, not supply chain level (Schmidt & Schwegler, 2008). In other words, such efforts are not easy to make visible to the consumers.

3.3. Lean

Lean, sometimes refers to as just-in-time, aims to optimise the process by eliminating wastes appear in that in a broader sense (Bruce, Daly, & Towers, 2004; Chan, Yin, & Chan, 2010; Hines, Holweg, & Rich, 2004). The concept has been applied in some sectors other than

traditional manufacturing systems, like healthcare sector (Mustaffa & Potter, 2009). The major assumption or pre-requisite of lean systems that is the ability to assure the resources are consumed in a smooth and interruptive manner. In other words, high degree of uncertainty will hinder the application of lean philosophy to not only green supply chain or green marketing activities, and also their interfaces.

3.4. Distribution and reverse logistics

Distribution network plays an important role between the marketing and supply chain interface. Obviously, this is the major concerns of supply chain management from cost and flow of materials perspective. Furthermore, this is also the point where a company can meet the customers, especially for industrial business. Like life-cycle assessment mentioned above, carbon footprint is another parameter to describe the “greenness” of a product or process. For example, Edwards, McKinnon, and Cullinane (2010) made use of such indicator to calculate the so-called “last mile” distribution network and attempted to compare different scenarios. Although the approach is scientifically objective, the same shortcomings for life-cycle assessment are applicable.

In contrast to the delivery of product from a warehouse, for example, to the customers, reverse logistics involves the movement in the opposite direction (Chan, 2007). Reuse, remanufacture, and recycle of returned products are definitely useful to reduce the environmental impact of a supply chain. Unfortunately, those activities, including aforementioned green product design, are normally driven by regulation (Maxwell & Van der Vorst, 2003). However, the value of returned products cannot be under-estimated (Blackburn, Guide, Souza, & Van Wassenhove, 2004). Therefore, the role of reverse logistics in the industrial marketing cannot be overlooked. This is particularly important when industrial packaging is involved. Returnable containers are just one example (Kroon & Vrijens, 1995).

4. The enabling role of technology and innovation for green supply chain

As early as two decades ago, the concept of “Green” was mainly forced by governments. For example, the Federal Trade Commission of the United State (FTC, 2012) commenced the auditing process in early 1990s for commercial branding in Green Marketing. Around the same period, Australian Trade Practices Commission (replaced by Australian Competition and Consumer Commission since 1995, ACCC, 2011) also listed a set of criteria to monitor the commercial marketing, two of which are particularly related to Green Supply Chain. They are: 1) when promoting a new product by comparing with others in the existing marks, the features related to the concept of Green need to be clearly defined and presented to the customers; 2) detail description of the conditions that can generate benefits to the environments. Industrial standards has also since then followed the calls of the governmental initiatives such as ISO 14000 series developed by the International Organization for Standardization (2004) for building up the environmental oriented management systems. Nowadays, complying with the standard brings companies not only the green images but also often a demand from the major business customers (e.g., Toyota and GM require their suppliers to meet such standard). The aforementioned standards and conditions in fact include the processes and products in various activities of the supply chain.

As discussed in previous section and depicted in Fig. 1, creating a supply chain complying with the Green initiatives involves with the processes to convert inputs to outputs that can be beneficial to the environments. Reflecting on the complex nature of supply chain management, the literature also addresses Green Supply Chain from various aspects. In fact, the processes can possibly include sourcing green materials (e.g., Green et al., 1996), environmental friendly

manufacturing design (e.g., less energy or less pollution), assembly, storage and distribution, and retailing, and the outputs will generate minimum wastes via reverse logistics for product re-claim, re-use or waste disposal (e.g., Messelbeck and Whaley, 1999 – study of health industry; Narasimhan and Carter, 1998).

In addition to the industrial standards and governmental legislations, there are two major enablers to facilitate the adoption of a green supply chain. As one of the main enablers, performance measurement frameworks were therefore developed (e.g., Godfrey, 1998; Hervani et al., 2005). Not only as tools for the design and evaluation of green supply chain performance, these frameworks can also aim to ensure the associated benefits such as the reduction of disposed material, development of by-products from wastes, and systemic tracking on the hazardous substance generated, and less energy consumption. The other enabler, innovation and the use of technology seem to be under research from the managerial aspects. In fact, implementing performance control relies on information systems to aggregate operational figures. Unlike performance measurement, there were only very few studies reported in main stream journals from the information systems aspects in the past 10 years and all of them are conceptual (Melville, 2010). Nonetheless, innovation and technology are certainly seen in the industries as the main drivers of green supply chain. For example, Epson invests heavily on green product innovations. It adopted none-surface coating techniques for most of its printers that have saved 28,000 tonne painting materials between 2007 and 2011. Similar stories can be found in Panasonic and its white ware products which can detect and record the consumers' usage behaviors to decide the energy saving mode. Those products are designed and manufactured by its partners in the supply chain. Moreover, applying technology wisely to standardize and monitor the green supply chain activities is essential of ensuring the performance of green supply chain. Ford uses Radio Frequency Identification (RFID) chip to record logistic movements of its production line and inventories such as facilitate energy efficiencies and reduce unnecessary transportations. These actions can potentially create huge impacts on the reduction of CO2 emissions (Melville, 2010, as cited from Climate Group 2008 report).

In summary, Green Supply Chain is more than a passive strategy but can be implemented as a proactive strategy. Not only being followers, companies have started to utilize the concept and related framework for marketing their brands as well as enjoy the benefits by working with the trading partners in sourcing, product design, manufacturing, and delivery in order to form a green supply chain. In this connection, the objectives of this special issue are to reflect the most recent advances on green industrial marketing, green/sustainable supply chains and their interplay in green industrial branding, and to explore future research directions.

5. Scanning the issues

This special issue consists of 7 high quality papers, each of which has been gone through at least two rounds of review by at least three

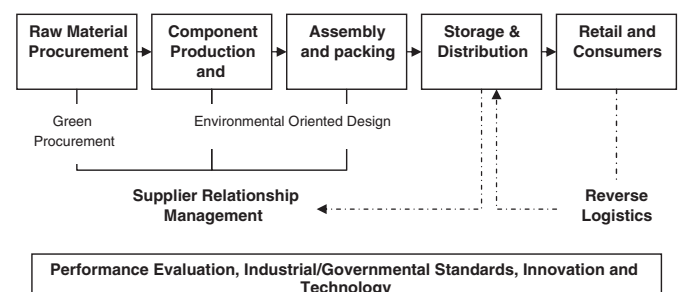


Fig. 1. Enablers and activities of green supply chain.

reviewers. These 7 papers cover a wide range of green management issues, such as green SCM and performance, greener product development and innovation, sustainability orientation, integration of green marketing and green SCM, comparison between B2B and B2C green SCM, and so on. The papers cover both public sectors and private sectors; use either quantitative hypotheses testing research, qualitative inductive research, or framework development for new green practice (i.e. resource constrained product development). This special issue is truly international, as data used in papers in this issue come from multiple countries, such as UK, China, France, Singapore, and so on.

Cheng and Sheu's (this issue) work provides insights into how the positive effect of relationship orientation on inter-organizational strategy quality can be moderated by the opportunistic behaviors and dysfunctional conflict of partnership in green supply chains. This is in contrast to previous studies which are more focusing on the antecedents to inter-organizational strategy quality. In addition, their study contributes to green supply chain research by integrating the perspective of economic and relational view in the study of the relational governance in green supply chains, which is not dealt with in previous studies. Finally, this paper extends current research by highlighting the role of value-based relationships from the economic and relational view of partners.

Oruezabala and Rico (this issue) investigate the effect of sustainable orientation on agreements and procurement contracts. The business marketing literature has not previously addressed public procurement practices. This research explores the consequences of greener expectations on buyer–seller relationships from the public purchasers' point of view. A qualitative investigation reveals that new environmental regulations call for new rules within formal and relational norms. Sustainable procurement implies new environmental requirements, the supplier base reduction, a need for continuous innovation, legitimacy of the purchasing function and a total cost of ownership approach. Consequently, both the level and the nature of expectations from providers are changing. Oruezabala and Rico (this issue) assert that sustainable public procurement tends to focus on fewer key suppliers with "green" skills and that procurement process needs to turn implicit norms into explicit ones in terms of environmental impact, value creation for end users (patients) or economic sustainability of hospitals.

The key research question of Liu, Kasturiratne and Moizer's (this issue) work is on how to coherently integrate green marketing with sustainable supply chain management, so that green customer's needs can be better met from both demand and supply sides. The paper discusses a hub-and-spoke model which addresses the integration from multiple dimensions, namely the 6Ps (product, promotion, planning, process, people and project). Compared with conventional point-to-point B2B integration, the proposed 6Ps integration model enables more effective information, materials, people and funds flow between marketing and supply chain activities. The 6Ps integration model has been evaluated through empirical study with industrial managers. Key contributions of the paper include a number of managerial implications which have been elicited through the theoretical and empirical studies of the 6Ps integration model, as well as key drivers and obstacles which have been identified for multi-dimensional integration of green marketing and sustainable supply chain management. The paper has high relevance to the Special Issue as it addresses one of key themes the Special Issue encourages, i.e. the interplay between green/sustainable supply chain management and green marketing.

In line with the aim to explore the current green supply chain practices in industrial markets, Lee and Lam (this issue) adopt the case study approach to explore how company overcomes the problem related to aftermarket service and logistics. Based on the solution and measure adopted by the company, the strategic framework including green market analysis, green market development, sustainable operation management and customer acquisition has been proposed.

8 propositions for those four research constructs in the proposed framework have been derived and supported by the related literature review. This paper provides managers and logisticians with some practical guidelines and insights when they attempt to adopt a greener approach in their business. The paper has highlighted the importance of green market analysis and green market development so as to enhance the competitive advantage and financial performance.

Resource constrained product development (or jugaad) is an under-researched area as this type of innovation takes place in a large number of countries and contexts, but is rarely reported because of the small size of markets. Most resource constrained product development innovations are produced in small quantities for very special contexts. In the last five years, resource constrained product development has become an area of increased interest as large firms have started utilizing this process. Therefore, the focus of extant research in resource constrained product development remains on the process. Sharma and Iyer (this issue) suggest that there are three additional benefits of resource constrained product development. The first benefit is defensible competitive advantage as products are produced at lower prices with desired feature sets. The second advantage is that resource constrained products by using fewer resources are more sustainable. Finally, resource constrained products by using fewer and off-the-shelf components make the supply chain more green and efficient. The paper fits the theme of the special issue by examining the role that resource constrained product development plays in enhancing green marketing and supply chain efficiencies.

"Green" supply chain management (GSCM) has often been associated with highly visible organization and consumer-focused industries, and as such GSCM in the context of industrial supply chain have often been ignored. Hoejmose et al. (this issue) provide one of the most comprehensive analyses of "green" supply chain management in the U.K. and they explicitly relate and compare GSCM across firms in B2B and B2C sectors. Therefore, they seek to understand the level of GSCM in both B2B and B2C sectors, and more importantly the conditions under which GSCM will foster in B2B settings. To this end, they make use of a novel data collection approach to capture GSCM, which minimizes social desirability and common source bias. The study extends the understanding of the degree to which GSCM is context dependent. In addition, they examine the condition under which GSCM is likely to be successfully implemented. More specifically, this paper considers how trust and top management support plays a role in shaping GSCM in both B2B and B2C supply chains. Results show that GSCM is relatively limited among firms in B2B markets compared to firms in B2C markets. At the same time, Hoejmose et al. (this issue) show that developing trust with supply chain partners, while also having top management support, is a crucial driver of engagement with GSCM among firms in B2B sector but less important among firms in B2C sector. These findings provide considerable insights to managers and marketers of B2B supply chains that seek to respond to a growing interest of environmental performance of supply chain.

Chan, He, Chan and Wang's (this issue) research empirically examines the relationship among environmental orientation, GSCM activities and corporate performance, as well as how an important context factor, competitive intensity may further moderate (strengthen) this relationship. In view of firms' increasing use of GSCM practices to address environmental demands of their various salient stakeholders and the potential for employing GSCM to improve such marketing operations as product and package design, marketing communication and channel selection, this research is considered timely and important to enrich the extant marketing literature, which has traditionally paid only limited attention the strategic implications of GSCM. By surveying foreign invested enterprises operating in China, this study demonstrates that environmentally oriented firms are more likely to practice GSCM activities. These activities include the firm's strategic use of recycling, redeployment and reselling

to enhance value of its materials and products, and cooperating with suppliers and customers to respectively 'green' its inbound and outbound logistical activities. By further demonstrating that these GSCM activities positively affect corporate performance, this study, among others, reminds industrial marketers of the importance to strengthen cooperation with their customers so as to achieve higher market share and market growth in today's highly competitive marketplace.

The guest editors hope you enjoy reading the special issues. We would also like to express our gratitude to Professor Peter La Placa, Editor of the Industrial Marketing Management, for deciding to publish this special issue. We are also grateful to the assistance of the publishing team provided to us. This special issue would not have been published without their support. In addition, the guest editors are also grateful to all reviewers for their valuable time and effort dedicated throughout the review process. Their timely feedback definitely have resulted in on time completion of the reviewing process, and have further improved the quality of the papers published in this special issue. Finally, we would like to thank all the authors for their contributions.

References

- Ambec, S., & Lanoie, P. (2008). Does It Pay to Be Green? A Systematic Overview. *Academy of Management Perspectives*, 22(4), 45–62.
- Australian Competition and Consumer Commission (2011). Green marketing and the Australian Consumer Law. Accessed on 13/2/2012.: <http://www.accc.gov.au/content/index.phpml/itemid/815763>
- Bai, C., & Sarkis, J. (2010). Green supplier development: analytical evaluation using rough set theory. *Journal of Cleaner Production*, 18(12), 1200–1210.
- Baker, W. E., & Sinkula, J. M. (2005). Environmental Marketing Strategy and Firm Performance: Effects on New Product Performance and Market Share. *Journal of the Academy of Marketing Science*, 33(4), 461–475.
- Banerjee, S. B., Iyer, E. S., & Kashyap, R. K. (2003). Corporate Environmentalism: Antecedents and Influence of Industry Type. *Journal of Marketing*, 67(2), 106–122.
- Blackburn, J. D., Guide, V. D. R., Souza, G. C., & Van Wassenhove, L. N. (2004). Reverse Supply Chains for Commercial Returns. *California Management Review*, 46(2), 6–22.
- Bowen, F. E., Cousins, P. D., Lamming, R. C., & Faruk, A. C. (2001). The role of supply management capabilities in green supply. *Production and Operation Management*, 10(2), 174–189.
- Bruce, M., Daly, L., & Towers, N. (2004). Lean or agile: a solution for supply chain management in the textiles and clothing industry? *International Journal of Operations and Production Management*, 24(2), 151–170.
- Chan, H. K. (2007). A proactive and collaborative approach to reverse logistics – a case study. *Production Planning & Control*, 18(4), 350–360.
- Chan, R. Y. K. (2010). Corporate environmentalism pursuit by foreign firms competing in China. *Journal of World Business*, 45(1), 80–92.
- Chan, H. K. (2011). Supply Chain Systems – Recent Trend in Research and Applications. *IEEE Systems Journal*, 5(1), 2–5.
- Chan, H. K., & Chan, F. T. S. (2010). Comparative Study of Adaptability and Flexibility in Distributed Manufacturing Supply Chains. *Decision Support Systems*, 48(2), 331–341.
- Chan, R. Y. K., He, H., Chan, H. K., Wang, W. Y. C. (this issue). Environmental Orientation and Corporate Performance: The Mediation Mechanism of Green Supply Chain Management and Moderating Effect of Competitive Intensity. *Industrial Marketing Management*.
- Chan, H. K., Yin, S., & Chan, F. T. S. (2010). Implementing just-in-time philosophy to reverse logistics systems: a review. *International Journal of Production Research*, 48(21), 6293–6313.
- Chen, Y. -S., Lai, S. -B., & Wen, C. -T. (2006). The influence of green innovation performance on corporate advantage in Taiwan. *Journal of Business Ethics*, 67(4), 331–339.
- Cheng, J.-H., Sheu, J.-B. (this issue). Inter-organizational relationships and strategy quality in green supply chains – moderating by opportunistic behavior and dysfunctional conflict. *Industrial Marketing Management*.
- Chiou, T. -Y., Chan, H. K., Lettice, F., & Chung, S. H. (2011). Influence of Greening the Suppliers and Green Innovation on Environmental Performance and Competitive Advantage. *Transportation Research Part E: Logistics and Transportation Review*, 47(6), 822–836.
- Côté, R. P., Lopez, J., Marche, S., Perron, G. M., & Wright, R. (2008). Influences, practices and opportunities for environmental supply chain management in Nova Scotia SMEs. *Journal of Cleaner Production*, 16(15), 1561–1570.
- Cronin, J. J., Smith, J. S., Gleim, M. R., Ramirez, E., & Martinez, J. D. (2011). Green marketing strategies: an examination of stakeholders and the opportunities they present. *Journal of the Academy of Marketing Science*, 39(1), 158–174.
- Edwards, J. B., McKinnon, A. C., & Cullinane, S. L. (2010). Comparative analysis of the carbon footprints of conventional and online retailing: A "last mile" perspective. *International Journal of Physical Distribution and Logistics Management*, 40(1/2), 103–123.
- Egri, C. P., & Herman, S. (2000). Leadership in the North American environmental sector: Values, leadership styles, and contexts of environmental leaders and their organizations. *Academy of Management Journal*, 43(4), 571–604.
- Federal Trade Commission of the United State (2012). Guides for the Use of Environmental Marketing Claims. Accessed on 13/2/2012.: <http://www.ftc.gov/bcp/gmrule/guides-980427.htm>
- Godfrey, R. (1998). Ethical purchasing: developing the supply chain beyond the environment. In T. Russel (Ed.), *Greener Purchasing: Opportunities and Innovations* (pp. 244–251). Sheffield, England: Greenleaf Publishing.
- Green, K., Morton, B., & New, S. (1996). Purchasing and environmental management: interaction, policies and opportunities. *Business Strategy and the Environment*, 5, 188–197.
- Green, K., Morton, B., & New, S. (1998). Green purchasing and supply policies: do they improve companies' environmental performance? *Supply Chain Management: An International Journal*, 3(2), 89–95.
- Handelman, J. M., & Arnold, S. J. (1999). The role of marketing actions with a social dimension: Appeals to the institutional environment. *Journal of Marketing*, 63(July), 33–48.
- Hervani, A. A., Helms, M. M., & Sarkis, J. (2005). Performance measurement for green supply chain management. *Benchmarking: An International Journal*, 12(4), 330–353.
- Hines, P., Holweg, M., & Rich, N. (2004). Learning to evolve – a review of contemporary lean thinking. *International Journal of Operations & Production Management*, 24(10), 914–1011.
- Hoejmose, S., Brammer, S., & Millington, A. (this issue). "Green" supply chain management: The role of trust and topmanagement in B2B and B2C supply relationships. *Industrial Marketing Management*.
- International Organization for Standardization, ISO 14001:2004 (2004). Accessed on 5/2/2012. http://www.iso.org/iso/catalogue_detail?csnumber=31807
- Jüttner, U., Christopher, M., & Baker, S. (2007). Demand chain management-integrating marketing and supply chain management. *Industrial Marketing Management*, 36(3), 377–392.
- Kroon, L. And, & Vrijens, G. (1995). Returnable containers: and example of reverse logistics. *International Journal of Physical Distribution & Logistics*, 25(2), 56–68.
- Lambert, D. M., & Cooper, M. C. (2000). Issues in Supply Chain Management. *Industrial Marketing Management*, 29(1), 65–83.
- Lamming, R., & Hampson, J. (1996). The Environment as a Supply Chain Management Issue. *British Journal of Management*, 7, S45–S62.
- Lau, A. K. W., Tang, E., & Yam, R. C. M. (2010). Effects of supplier and customer integration on product innovation and performance: Empirical evidence in Hong Kong manufacturers. *Journal of Product Innovation Management*, 27(5), 761–777.
- Lee, C. K. M., Lam, J. S. L. (this issue). Managing reverse logistics to enhance sustainability of industrial marketing. *Industrial Marketing Management*.
- Liu, S., Kasturiratne, D., Moizer, J. (this issue). A hub-and-spoke model for multi-dimensional integration of green marketing and sustainable supply chain management. *Industrial Marketing Management*.
- Maxwell, D., & Van der Vorst, R. (2003). Developing sustainable products and services. *Journal of Cleaner Production*, 11(8), 883–895.
- Melville, N. P. (2010). Information Systems Innovation for Environmental Sustainability. *MIS Quarterly*, 34(1), 1–21.
- Menguc, B., & Ozanne, L. K. (2005). Challenges of the "green imperative": a natural resource-based approach to the environmental orientation–business performance relationship. *Journal of Business Research*, 58(4), 430–438.
- Menon, A., & Menon, A. (1997). Entrepreneurial Marketing Strategy: The Emergence of Corporate Environmentalism as Market Strategy. *Journal of Marketing*, 61(1), 51–67.
- Messelbeck, J., & Whaley, M. (1999). Greening the health care supply chain: triggers of change, models for success. *Corporate Environmental Strategy*, 6(1), 39–45.
- Mustaffa, N. H., & Potter, A. (2009). Healthcare supply chain management in Malaysia: a case study. *Supply Chain Management: An International Journal*, 14(3), 234–243.
- Narasimhan, R., & Carter, J. R. (1998). Linking business unit and material sourcing strategies. *Journal of Business Logistics*, 19(2), 155–171.
- Oruezabal, G., Rico, J.-C. (this issue). The impact of sustainable public procurement on supplier management. The case of French public hospitals. *Industrial Marketing Management*.
- Ragatz, G. L., Handfield, R. B., & Petersen, K. J. (2002). Benefits associated with supplier integration in new product development under conditions of technology uncertainty. *Journal of Business Research*, 55(5), 389–400.
- Rao, P., & Holt, D. (2005). Do green supply chains lead to competitiveness and economic performance? *International Journal of Operation & Production Management*, 25(9), 898–916.
- Russo, M. V., & Fouts, P. A. (1997). A Resource-Based Perspective on Corporate Environmental Performance and Profitability. *The Academy of Management Journal*, 40(3), 534–559.
- Sarkis, J., Gonzalez-Torre, P., & Adenso-Diaz, B. (2010). Stakeholder pressure and the adoption of environmental practices: The mediating effect of training. *Journal of Operations Management*, 28(2), 163–176.
- Schmidt, M., & Schwegler, R. (2008). A recursive ecological indicator system for the supply chain of a company. *Journal of Cleaner Production*, 16(15), 1658–1664.
- Sharma, A., Iyer, G. R. (this issue). Resource-constrained product development: Implications for green marketing and green supply chains. *Industrial Marketing Management*.
- Siegel, D. (2009). Green Management Matters Only If It Yields More Green: An Economic/Strategic Perspective. *The Academy of Management Perspectives*, 23(3), 5–16.
- Vachon, S., & Klassen, R. D. (2008). Environmental management and manufacturing performance: The role of collaboration in the supply chain. *International Journal of Production Economics*, 111(2), 299–315.

- Yung, W. K. C., Chan, H. K., So, J. H. T., Wong, D. W. C., Choi, A. C. K., & Yue, T. M. (2011). A life-cycle assessment for eco-re-design of a consumer electronic product: a case study. *Journal of Engineering Design*, 22(2), 69–85.
- Zhu, Q., & Sarkis, J. (2004). Relationships between operational practices and performance among early adopters of green supply chain management practices in Chinese manufacturing enterprises. *Journal of Operations Management*, 22(3), 265–289.

Dr. Hing Kai Chan is a Senior Lecturer in Operations and Supply Chain Management in the Norwich Business School, University of East Anglia. He gained his PhD (with research focus on supply chain management), an MSc (with distinction) in Industrial Engineering and Industrial Management, and a bachelor degree in Electrical and Electronic Engineering, all from the University of Hong Kong. He also earned a bachelor's degree in Economics and Management from London School of Economics and Political Science. Sustainable supply chain management is his recent research interest. His publications appear in *Supply Chain Management: An Internal Journal*, *International Journal of Production Economics*, and so on.

Dr. Hongwei He is Associate Professor of Marketing at Marketing and Strategy Group, Warwick Business School, University of Warwick. Dr. He does GERM research: Green; Emotional; Relational; and Moral. Dr. He has published widely in journals, such as *British Journal of Management*, *Journal of Business Research*, *Journal of Business Ethics*, *European Journal of Marketing*, among others.

Dr. William Y. C. Wang is currently an Associate Professor at the Auckland University of Technology, New Zealand. He has supervised research projects and provided industrial consultancy in Australasia and Asian regions regarding supply chain management, global supply chain planning, and business process reengineering. These researches have specifically highlighted on the interdisciplinary issues related to B2B integration, enterprise systems adoption and maintenance, and supply chain configuration for large firms and SMEs. Those are both quantitative and qualitative. He also serves on the editorial board/advisory board of several international journals. His papers appear in *Information Systems Journal*, *International Journal of Production Economics*, *International Journal of Production Research*, *Supply Chain Management – an International Journal*, *International Journal of Production Planning and Control* and proceedings of international conferences.