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Special issue on: Contemporary Purchasing Practices

**Tracing the evolution of purchasing research:
future trends and directions for purchasing practices**

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ABSTRACT

Purpose—This conceptual article details the evolution of purchasing research, and describes the increasing integration of purchasing with other strategic functions, in order to identify key trends in purchasing practices, together with their implications for purchasing research.

Design/Methodology/Approach—This study takes a conceptual approach and reviews prior literature to describe the field and predict future developments.

Findings—Purchasing is increasingly integrated with different business functions, such as strategy, marketing, decision making and supply chain management. Key real-world trends include sustainable and ethical purchasing, purchasing in the digital economy, supply chain risk management and public sector purchasing. These trends suggest both avenues for further research and specific methodologies to pursue them.

Originality/value—By providing a comprehensive overview of the trends in purchasing practice and research, this study offers unique insights, especially for researchers who seek to continue expanding the field.

Keywords—Purchasing research, purchasing strategy, decision making, marketing, supply chain management, research methodologies

Article Type—Conceptual paper

Tracing the evolution of purchasing research

To delineate the evolution of purchasing practices and its implications for purchasing research, we highlight how purchasing has transitioned from a single business function to a cross-functional business process. We discuss the integration of purchasing with other business areas, including strategy, decision making, marketing and supply chain management.

Introduction to the purchasing evolution

In their historical accounts of purchasing practices, from 1850 to the present day, Handfield *et al.* (2011) and Lysons and Farrington (2012) emphasise the emergence of structured material management systems around the mid-1960s and the effects of globalisation for purchasing and outsourcing practices starting from the late 1970s. They also explain that twenty-first century purchasing is less often managed by a single function; rather, it is evolving into a cross-functional business process. This evolution has important implications for research, because it demands an interdisciplinary management approach. In this section, we focus on the main trends leading to cross-functional purchasing processes, including integration of purchasing with strategy, with decision making and with marketing, as well as the transformation of purchasing as integrated supply chain management.

Purchasing and strategy

Adopting Ellram and Carr's (1994) literature review, we categorise purchasing and strategy contributions into two main areas: articles that investigate purchasing strategies and those analysing purchasing as a strategic capability of the firm. For example, Kraljic (1983) suggests choosing purchasing strategies according to the importance of the purchased product to the company and the complexity of the market that supplies that product. But Reck and Long (1988) instead argue that purchasing functions can support the firm's strategy, through four stages of development: (1) passive, (2) independent, (3) supportive and (4) integrative

purchasing. More recent contributions look beyond the purchasing function to examine strategies used to manage suppliers and their implications for the firm's strategy. Bensaou (1999) categorises buyer–supplier relationships on the basis of the buyer's and the supplier's specific investments and thereby identifies four types of relationships: market exchange, captive buyer, captive supplier or strategic partnership. Chen *et al.* (2004) show empirically that communication and a long-term orientation in a buyer–supplier relationship mediate the effect of strategic purchasing on customer responsiveness, which increases the firm's financial performance. By investigating which mix of relational and transactional purchasing organizations should use, Lindgreen *et al.* (2013) uncover four relevant purchasing practice mixes, which they label transactional, interpersonal dyadic, interpersonal network and integrative relational.

Purchasing and decision making

Decision-making research that analyses purchasing problems mostly focuses on identifying the most suitable supplier or supply base. Ho *et al.* (2010) categorise this literature stream according to the approach used, whether data envelopment analysis, mathematical programming, analytic hierarchy and network processes, fuzzy set theory or simple multi-attribute rating techniques, or some combination thereof. Wu and Barnes (2011) define this literature by the phases of the partner selection framework, namely, criteria formulation, qualification, final selection and application feedback. As Chai *et al.* (2013) highlight in a recent, systematic literature review, key research trends include incorporating supply chain risk as a factor in the supplier selection process (Chan and Kumar, 2007) and incorporating green practices as criteria for selecting suppliers (Genovese *et al.*, 2013).

Purchasing and marketing

Marketing research cannot be considered separately from purchasing research; since the 1960s, marketing scholars have been analysing organizational buying and industrial

purchasing issues. Some examples of seminal works in this area include Robinson *et al.* (1967), Webster and Wind (1972) and Sheth (1973). Robinson *et al.*'s (1967) buy grid model identifies the most critical phases of the buying process for new tasks, modified rebuys and straight rebuys. Webster and Wind (1972) initiated organizational buying behaviour research. Sheth's (1973) proposed model of industrial buyer behaviour has supported analyses of buying centres and decision-making units. Yet both practitioners and academics have exhibited tendencies to consider purchasing and marketing as separate fields, mainly because purchasing focuses on suppliers, whereas marketing addresses customers (Sheth *et al.*, 2009). In practice, marketing and purchasing often get organised into separate functions and refer to separate professional bodies, such as the Chartered Institute of Marketing (CIM) and the Chartered Institute of Purchasing and Supply (CIPS) in the United Kingdom. Purchasing and marketing, it seems, have evolved as separate academic disciplines. Ivens *et al.* (2009) call for the integration of purchasing with marketing though, and Sheth *et al.* (2009) cite two reasons that this integration is both inevitable and beneficial. First, modern-day marketers are solution oriented rather than product focused. The prevalence of outsourcing requires companies to source products and services from third-party suppliers, which makes the involvement of the purchasing function inevitable. Second, customer-centric marketing, often in connection with just-in-time delivery, requires marketing and purchasing to align to deliver effective solutions to customers.

Purchasing and supply chain management

Integration across functions, as a means to deliver better customer service, has led to the development of supply chain management as a separate field of research and practice. Academics and practitioners have proposed many definitions of supply chain management over the years. We adopt the definition proposed by the Council of Supply Chain Management Professionals: "Supply Chain Management encompasses the planning and

management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers and customers” (CSCMP, 2013, p. 187). This CSCMP definition reflects a “unionist approach” (Larson and Halldórsson, 2004), such that supply chain management includes purchasing and supply management, operations management and logistics management. Moreover, this view attributes a more strategic focus to supply chain management, because its elemental activities include coordination and collaboration with channel partners. Purchasing and supply, operations and logistics management often take their own singular perspective, but supply chain management adopts a more holistic view, encompassing the supply chain as a whole. The investigation of netchains by Lazzarini *et al.* (2001) represents one of the first studies to adopt this integrative approach.

Future trends and directions for purchasing practices

Having noted the evolution of purchasing, from a single business function to a cross-functional business process, in this section we consider future trends and directions of purchasing practices and their likely impacts on academic research. Five main purchasing areas are experiencing relevant changes and could affect the trends and directions for purchasing practices. We highlight research opportunities for each of these areas. We also offer some remarks about trends in purchasing research methodology.

Purchasing trends

In seeking to identify future trends for purchasing practices, Handfield *et al.* (2011) highlight the evolution to supply chain management, as we discussed in the previous section. In particular, they argue that purchasing can increase supply chain performance by fostering collaboration with suppliers and developing suppliers’ skills. They also emphasise that technology will play a relevant role in this process. In their purchasing excellence study, the

consultancy Roland Berger (2011) explains that sustainability and risk management are key elements for achieving purchasing excellence. With their analysis of previous literature on purchasing practices, Zheng *et al.* (2007) identify thematic areas that appear relevant for future purchasing research, including purchasing and supply strategy and structure, purchasing and supply system development, e-business and public procurement. According to Schoenherr *et al.* (2011), the main research opportunities for purchasing and supply management are global purchasing and supply management, relationship management, uncertainty and risk management, sustainability and green supply management, electronic purchasing and supply management, and the links of strategic purchasing to supply management to financial performance. In accordance with these contributions, as well as our own experience in the field, we identify five purchasing areas that appear likely to affect the trends and directions of purchasing practices: sustainable purchasing, ethical purchasing, purchasing in the digital economy, purchasing and supply chain risk management and public sector purchasing.

Sustainable purchasing

Gimenez and Tachizawa (2012) identify two distinct elements of sustainable purchasing: green purchasing and ethical purchasing. We discuss sustainable purchasing in this section and ethical purchasing in the next. Following an extensive professional survey, SCM World (2014) identified the principal driver of sustainable supply chain management initiatives to be cost savings, including cash savings on energy, reduced packaging expenses and general material cost efficiency. Academic studies tend to include a more comprehensive list of drivers. For example, Miemczyk *et al.* (2012) identify four key goals of sustainable purchasing initiatives, as follows: waste and recycling reduction, pollution reduction, cost reduction and CO₂ reduction. Genovese *et al.* (2013) instead focus on criteria for supplier selection and note that the most used sustainable criteria are the availability of a waste

management system, green design capability, environmental staff training and involvement, energy efficiency and resource consumption, availability of an environmental management system, percentage of waste that goes to landfill and percentage of recycled waste. Continued research needs to address explicitly how to link sustainable practices to firm and supply chain performance, such as enhanced brand image that leads to sales increase, and thus encourages practitioners to consider not just cost savings but also benefits when they make investment decisions about sustainable purchasing practices. Igarashi *et al.* (2013) also find that the supply selection process tends to be poorly integrated with the overall sustainable strategy embraced by companies and supply chains. Therefore, research should focus on integrating sustainable purchasing strategies, in particular with the overall green strategy of the companies and supply chains that adopt them.

The academic community at large has called for a more holistic, interdisciplinary view of sustainable purchasing and supply chain management; the June 2014 special issue of *Science* even focused on the environmental impact of supply chains (see Hoekstra and Wiedmann, 2014; O'Rourke, 2014). Therefore, research on sustainable purchasing needs to be more interdisciplinary, marked by collaborations between management academics and environmental scientists.

Ethical purchasing

According to the CIPS (2013), ethical and responsible procurement is a process that respects fundamental international standards against criminal conduct and human rights abuse but also progressively improves the lives of people who contribute to supply chains. By increasing the transparency of the sourcing process, it is possible to expose the unethical behaviours of suppliers, including bribery, corruption or unsafe working conditions. Research in this area remains limited though. Klassen and Vereecke (2012), with five case studies, derive relationships among social responsibility in supply chains, social management

capabilities, operational risk and firm performance. Jiang *et al.* (2012) analyse the detrimental effect of inferior working conditions on supply chains, whereas Schrempf *et al.* (2013) seek to find ways to expand corporate social responsibility upstream and downstream in the supply chain by addressing the human rights of workers. More empirical research on ways to increase transparency in the supply chain and ensure human rights is needed. Researchers also should clarify the relationship between ethical purchasing practices and firm or supply chain performance.

Harper (2010) defines inclusive value chains as those supply chains that improve the lives of people who contribute to them. He describes how supply chains might redistribute some of their profits to improve the lives of small farmers and artisans in India. This area has been insufficiently explored by current research, yet its investigation could produce a wealth of interesting research studies. Issues of exploitation of suppliers by powerful buyers can be observed in analysis of grocery and food supply chains. In the UK, large supermarket chains have long been criticised for ‘unethical’ purchasing behavior in their dealings with (especially small scale and unbranded) suppliers (Hingley, 2005). These purchasing issues may concern, in particular, very long times between receipt of goods and payment and the demanding of upfront payments from suppliers to support better in store positioning of their goods in retail marketing campaigns. Legislation in the UK has more recently begun to catch up with practice in this sector, with the appointment of the Groceries Code Adjudicator, who sits in independent judgment over complaints from suppliers concerning their treatment from retail buyers, as abuse of power and in unfair practices (Groceries Code Adjudicator, 2015). To date, this body has expressed little authority, relying instead on public/ media sanction to highlight cases of retailer abuse of power in the supply chain. However, the willingness for a country to legislate on ethics and purchasing practice does seem to mark a change in direction.

Purchasing in the digital economy

According to SCM World (2014), big data analytics, digital supply chains and the Internet of things are the most disruptive technologies for supply chains. First, big data analytics appear instrumental for ensuring better supply chain visibility and learning more about consumer behaviour. However, research contributions in this area are extremely limited. Hazen *et al.* (2014) also note the problem of data quality in this research sector.

Second, the emergence of digital supply chains has reshaped supply channels and networks and changed the relationships among suppliers and buyers, especially by transforming the roles of intermediaries and agencies (Banker *et al.*, 2011). Consumers can bypass traditional routes and intermediaries and buy online directly from consumers. Yet large companies such as eBay and Amazon also have established themselves as intermediaries on a global scale, matching suppliers and consumers from around the world and thus contributing to the trend by which digital supply chains revolutionise access to international markets. Recent research considers digital commodities markets (D'Ignazio and Giovannetti, 2014). Further research should also seek to understand the relationship between traditional and digital supply chains, and in particular their pricing structure. Should an e-book be priced more or less than the same book in traditional format? Might the level of inventory, supply quantity discounts or supplier promotions affect such decisions?

Third, the 'Internet-of-things' is an umbrella term used to refer to machine-to-machine technologies. In a supply chain management context, these technologies can support freight or fleet tracking management applications. Previous literature mostly focuses on RFID tracking (Sarac *et al.*, 2010), with fewer studies addressing GPS tracking (Mogre *et al.*, 2014). Ng *et al.* (2014) discuss the strategic implications of adopting Internet-of-things applications in a supply chain and highlight that a shared supply chain strategy is necessary to define the adoption of such applications. Good supply relationship management in turn is

critical for defining such a strategy, including investment decisions and the implementation of these applications.

Purchasing and supply chain risk management

Purchasing literature traditionally regards risk in terms of supply risk (Kraljic, 1983), such that contributions describe ways to reduce risk in the supply process by interpreting the effects of supply risk (Zsidisin, 2003) or embedding it in the supplier selection process (Chan and Kumar, 2007). However, more recently, academics and practitioners note that purchasing can take a strategic role in mitigating the negative effects of supply chain risk. According to SCM World (2014), “joint risk mitigation with suppliers drives companies’ ability to leverage supply chain disruptions by a factor of almost 2:1.” Early literature established the relevant role of suppliers for increasing the responsiveness of the supply chain and thereby mitigating the negative effects of supply chain risks (Norrman and Jansson, 2004). But recent outsourcing and globalisation trends have increased coordination and control problems, thus decreasing the responsiveness and resilience of supply chains to risks. Suppliers also can take increasing responsibility for supply chain processes through risk-sharing mechanisms (Li and Kouvelis, 1999). In addition, effective contract design might increase risk sharing in the supply chain, reducing the overall risk profile of the supply chain (D’Amico *et al.*, 2014).

In the future, researchers should seek to understand how purchasing and supply management can reduce risk profiles in a supply chain. In particular, research might pursue an understanding of the advantages and disadvantages of various contract forms and their impact on reducing supply chain risk profiles while increasing supply chain profitability.

Public sector purchasing

Current industry trends in public sector purchasing can be categorised into three areas: regulations, partnering and individual competencies of purchasing managers. Each area needs additional attention from purchasing researchers. First, regulatory trends revolve

around the efforts of harmonising legislative standards across the European Union and World Trade Organization (Bovis, 2012). These efforts have two principle aims: The use of shared terms and conditions can make the process more standard, reducing its costs and lead times, and this harmonisation of international standards can open market opportunities, by ensuring inclusion and fair competition. Research on such regulations should focus on how these aims might be achieved in practice.

Second, public sector purchasing has been insufficiently studied, relative to private sector purchasing. Lessons from the private sector might be applied to enhance public sector purchasing, such as by involving potential suppliers early in the process or fostering dialogue between the public sector and industry (Tadelis, 2012). Public–private partnerships could be particularly effective in enhancing public purchasing and its supporting sectors, such as defence (Glagola and Sheedy, 2002). As partnering becomes more prominent, research should consider the role of integrators in shaping partnerships and mediating the relationships between the public sector and industry. Another stream of research could investigate ways to enhance small-and medium-sized enterprises’ ability to interact with the public sector, such as through e-procurement applications (Karjalainen and Kemppainen, 2008).

Third, developing the competencies of individual managers involved in public sector purchasing is another area in which the field might benefit from insights gleaned from the private sector (Schiele and McCue, 2006). Practitioners and academics often overlook management competencies for public sector purchasing (McKevitt *et al.*, 2012). Research in this area should investigate the behaviour of personnel involved in public sector purchasing and the relationship to purchasing performance. In particular, studies could focus on how to delegate authority, how to incentivise personnel and how to organise public sector purchasing functions.

Methodology

Spina *et al.* (2013) show that, in purchasing literature, the number of confirmatory, survey-based studies is increasing, but the number of exploratory, case study-based studies is decreasing. This trend suggests purchasing literature is becoming more mature. That is, academics in the past employed case study research to build new theories, but today, many researchers are testing these theories using survey-based research. We believe this trend will continue, especially for mature research topics. However, the innovative research areas we have identified still require some case study or application-based research, because knowledge in such areas remains quite limited. This recommendation is particularly relevant for areas of research that feature only seminal contributions, such as inclusive value chains. We also propose that mixed methods that combine both qualitative and quantitative methods may be particularly suitable for advancing the research topics we have highlighted in this section, because mixed methods can not only create new knowledge but also test it.

Van Weeele and Van Raaij (2014) also consider methodological aspects of purchasing research and affirm that purchasing is becoming more strategic and more closely integrated with other functions. They argue that the theories employed in purchasing studies should reflect this trend and, in particular, that purchasing research should employ strategic management theories more often. They offer stakeholder theory, network theory, the resource-based view of the firm, dynamic capabilities theory and relational views as potential candidates. We also suggest that as the purchasing discipline becomes more interdisciplinary, the theories and methods employed should be interdisciplinary as well. Further research should adopt not just strategic management theories but also other theories from the management community at large and from other fields, such as environmental science for integrated sustainable purchasing and marketing research, or legal studies for regulatory public sector purchasing research.

Conclusions

We have traced the evolution of purchasing research, highlighting how purchasing is growing increasingly integrated with other business functions and processes, especially those related to strategy, decision making, marketing and supply chain management. We also have identified future trends and directions for purchasing practices, emphasising their impact on academic research and their potential for laying out further research avenues. The purchasing trends we identify relate to the following areas: sustainable and ethical purchasing, purchasing in the digital economy, purchasing and supply chain risk management and public sector purchasing. We also provide our perspective on the evolution of appropriate methodology for purchasing research.

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