

# Procurement Information Systems: Collaboration to Fight Against Crisis

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**Abstract.** The length and sheer scale of the current economic crisis has surprised managers, who were completely unprepared to deal with such an unanticipated situation. Standing at the heart of their businesses and providing a link between executives and employees, these managers need to limit the impact of the crisis in an environment in which various constraints, unexpected events and social tensions are on the increase. Restructuring and cost-killing are the first port of call, which makes buyers very busy people. However, some buyers are pioneering a new kind of collaborative management which, instead of increasing the pressure on suppliers and reducing risk-taking to a minimum, advocates taking new initiatives that are not aimed solely at maximising profits in the short-term. This article offers an overview of this new, foresight-based Procurement practice. After highlighting recent Procurement function developments, which were largely responsible for the consequences of the crisis, our constructivist methodology proposes to interview 12 buying experts in order to develop scenarios and identify the features of the Collaborative Procurement. The final section then presents: (1) new forms of internal and external collaboration; (2) the roles and specific skills of this type of the "buyer of the future"; and (3) how the globalised economy is becoming an increasingly community-based, collaborative virtual environment.

**Key words:** Procurement function, Economic crisis, Collaboration, Collaborative Buyer, Foresight.

## 1 Introduction

As firms have refocused on their core business there has been a rapid, significant increase in the importance of managing the Procurement function. This increase in purchasing volumes automatically puts greater pressure on the control of costs, quality and lead-times (Ballaz, 2002). It is accompanied by a new development in the Procurement function whereby buyers, in addition to managing supplies, listen to the market in order to detect new trends and technical progress resulting from technological innovation (Allal-Cherif, 2007). The 2009 economic crisis has put businesses, and especially Procurement departments, in a particularly difficult situation. Faced with dwindling order books and significant financial losses, the initial reaction is to embark on a drastic policy of cost-killing and procedural restructuring.

Objectives are all scaled down, investment projects and recruitment are frozen and output is slowed or even stopped in some cases.

Buyers are the first levers in cost reduction, particularly in industrial companies such as Caterpillar, Schneider Electric, Nestlé, Thales or PSA, where they manage over 65% of turnover. However, the Procurement function is faced with a dilemma: it needs to reduce spending significantly without increasing the pressure on suppliers that are already on the verge of bankruptcy. Buyers therefore need to manage risk and prepare for the end of the crisis by implementing root and branch changes to business practices and consolidating the competitive advantages deriving from better management of supplier relations. The major multinationals have thus realised that the reason some of their suppliers have completely disappeared is not for the want of customers, but rather a lack of cash-flow; these suppliers are often paid 60, 90 and even 120 days after the billing month (Benassy-Quéré et al, 2009). Despite their order books being full, many of them had accepted trading conditions that were too dangerous for their financial stability, which the crisis ended up undermining.

This paper presents a new, “collaborative buyer” approach to the management of the Procurement function, as applied by 12 Procurement Directors or Managers in their companies. During the course of our interviews a new approach to managing the Procurement function emerged, with different objectives and new methods. In the first part, traditional Procurement practices will be analysed in light of the current crisis in order to underline their limitations and the need for innovative approaches to internal and customer-supplier relations. The second part will present the two-pronged research methodology: occupational foresight and the scenario approach. The profile of the “Procurement experts” interviewed and the interview guide will be described. The third part will present several hypothetical scenarios that have been co-constructed, along with recommendations for best Procurement practice.

## **2 Procurement and the Economic Crisis**

### **2.1 Polymorphic management of the Procurement function**

Over the past 15 years, the Procurement function has evolved significantly: it has played an increasingly important role in the life of firms and has become highly strategic. This traditionally low-profile function involving between 2% and 5% of employees in multinational firms has emerged as a key profit centre that is managed meticulously by head office (Lurin and Beloeuvre, 2005). In addition to their normal tasks, i.e. to maximise quality while minimising costs and optimising lead-times, buyers create value by identifying their suppliers’ new techniques, developments or inventions (Vlcek, 2002). They are at the heart of the innovation process because they are best placed to know the suppliers that they might bring into a potential partnership to work together on a new product or new technology (Teece et al. 1997). Buyers now work proactively: they find solutions through strategic alliances involving several links of the same industrial value chain, enabling them to access resources, technologies and levers which the firm would not be able to access alone. They can

see how the talents of several companies may be combined to produce key competitive advantages (Rodriguez Ruiz, 2005).

After a long period lasting until the late 1990s in which buyers tended to be recruited for their expertise in reducing costs and streamlining the supply chain, they are now much more likely to be selected for their ability to anticipate market changes and to propose new development projects rather than in response to any accounting concerns. Cost and lead-time optimisation quickly reaches a ceiling which technological progress can ignore and it is in this race for innovation that most companies are now seeking a technological advantage (Calvi and Barreyre, 1997). Groupings – whether between competitors or between customers and suppliers – are on the increase, in order to secure financial, material and human resources and greater expertise. The teams subsequently set up systematically involve buyers who use information and communications technology to improve business intelligence, information-sharing, collaboration, knowledge capitalisation and project management (Bressler and Grantham, 2000; Schubert and Ginsburg, 2000; Brousseau, 2002).

## **2.2 A strategic function that needs to develop significantly before being mature**

In the 1990s, despite early studies showing the strategic role of the purchasing function, most buyers were acting as “cost-killers”, their main role being to minimise supply costs. Fierce pressure was exerted on prices and suppliers, which gave rise to unfair trading conditions accompanied by destabilising manoeuvres and bargaining tactics. These harmful approaches were often approved by management, with its inadequate knowledge of the business of Procurement and managing customer/supplier relations. Outsourcing an activity was considered like outsourcing the problems related with this activity and companies didn't want to know about it. The emergence of sustainable development in companies with a focus on ethical, fair and environmentally-friendly trading has changed the rules of the game and radically altered buyers' behaviour (Carter et al., 2007).

Today, purchasing is considered as a key function, involved in the global strategy of a firm and contributing to the creation of sustainable value and decisive competitive advantage (Cavinato, 1999). However, this function as to be structured by specific processes, competencies and tools to reach a high level of maturity and develop its full potential (Cousins and al., 2006). The economic crisis is an opportunity to improve and to have a new vision of the way to do business: it's time to accept that suppliers have their own expertise, that maybe it would be a good thing to adapt the organisation to their schedule, and that they need money to invest in improving production and creating new technology (Tassabehji and Moorhouse, 2008). Buyers have to build strong long term partnership with their most strategic suppliers and to develop collaboration and knowledge management (Ordanini, 2006). They even have to protect their suppliers from financial difficulties by helping them in paying them faster and investing in their projects to get exclusivities. The trust relation is essential to share the risks and work together to reach ambitious objectives (Ratnasingam and al., 2005).

### **2.3 The future of Procurement: the cooperative management approach**

There are several factors behind the current radical rethink of traditional management methods. An accelerating economy leads to a frantic race to innovate in a bid to be the “first mover” to exploit a killer technology. Globalisation requires a much more highly-developed, sophisticated competitive intelligence, capable of detecting faint signs of opportunities or threats at a very early stage. The rise of Information and Communication Technologies (ICT) has helped to strengthen horizontal communication and opportunities for coordination between players within and outside the company. The new Generation Y now accounts for 20% of the workforce, but should rise to 40% within 5 years (INSEE). The economic crisis has shown the limitations of the traditional models of managing the Procurement function by revealing the interdependence of companies operating in the same market and the risks ensuing from stiff competition between competitors or when the customer/supplier power relationship is heavily skewed.

Thus, the cooperative management approach to the Procurement function is only present in a few pioneering companies with a high level of maturity such as Schneider Electric, IBM and Nestlé. This method has gained many followers since the beginning of the economic crisis, both in terms of internal and external collaboration. Internally, it can be achieved through: (1) synergies between Procurement and other functions such as Research and Development or Marketing; (2) co-decisions between hierarchical levels; (3) buyer-led cross-project management. Externally, the main forms of cooperative management of the Procurement function involve: (1) technological co-development and product co-design with suppliers; (2) sponsorship of innovation; (3) assisted production planning; (4) integration of information systems; (5) automation or outsourcing part of the Procurement function; and (6) collaborative strategic management (Allal-Cherif, 2007).

## **3 A Constructivist Methodology: Foresight and Scenario Method**

### **3.1 Procurement foresight: Towards structural, functional anticipation**

This paper aims to carefully co-construct a common picture of the future of the Procurement function, based on interviews with twenty experts (Thamain, 2009). This “anticipation, however imperfect, of changes, discontinuities, contingencies” of the Procurement function is not covered by managerial foresight (Boyer and Scouarnec, 2009). Given the increasingly sustained, violent turbulence affecting the business world, foresight has become essential for companies to prepare to challenge their competitors, who are also trying to look ahead and find their place in the world of the future. Preparing to adapt will always be much more effective than reacting to the unexpected and it is through the use of foresight to identify potential problems that solutions are most likely to be found and implemented in time (Julien et al., 1975).

“Occupational forecasting is an approach that involves anticipating possible futures in terms of the skills, activities and responsibilities of an occupation. It enables us to envision the knowledge and qualifications, expertise or professional know-how

and the attitudes and social skills that might, in future, best serve the individual and the organisation. To achieve this, the experts in the occupation/s under analysis need to co-construct a picture of the potential future of that occupation or those occupations. It therefore involves reflecting on the individual occupation and the way work is organised.” (Boyer and Scouarnec, 2009).

### 3.2 Selecting the Procurement experts and the interview protocol used

In order to carry out this foresight study, we chose 12 experts in the field, working in various sectors such as Textile, IT or energy and from heterogeneous size. This diversity allows for a sufficient variety of viewpoints to cover most of the buyer’s skills, activities and responsibilities being studied. In order to minimise the effects of any subjectivity and interpretation, only half of these experts were previously known to the interviewers. However, even those experts who were unknown to the interviewers before the survey were approached by the researchers, following a recommendation, in order to promote the climate of trust and confidence required by the nature of the research. Table 1 summarises some of the characteristics of the Procurement experts and assigns them a code which will be referred to when quoting verbatim.

Buyer code	Position	Size of firm (employees)	Turnover	Sector
A1	Procurement Manager	400 000	€104 billion	IT
A2	Procurement Manager	270 000	€75 billion	Foodstuffs
A3	IT Procurement	200 000	€19 billion	Electricity
A4	Procurement Director	120 000	€180 billion	Energy
A5	Procurement Manager	100 000	€40 billion	Machinery
A6	Buyer	70 000	€20 billion	Cosmetics
A7	Procurement Manager	55 000	€10 billion	Distribution
A8	Procurement Director	9 000	€5.1 billion	Telecoms
A9	Procurement Director	8 000	€2.5 billion	Textiles
A10	Procurement Director	1 400	NA	Public Health
A11	CEO	47	€200 million	Equipment
A12	CEO	20	€50 million	IT consulting

Table 1 – Panel of Procurement Managers/Directors interviewed

### 3.3 The interview guide and method

The interview guide was based on a review of the literature by the authors, all Procurement function professionals for between 10 and 30 years, and ten contact interviews used to present the project to the experts. Noting the individual interests and specialisations of each expert, we tailored the interview guide to reflect their experience and style. A first round of informal exploratory talks was conducted with the 12 Procurement experts in order to identify development pathways for the Procurement function. During these initial interviews, no reference was made to the

responses given by other interviewees. A second round of semi-structured interviews was then held to confirm and expand on the previous interviews. These were conducted in reverse order so as to revisit all the pathways identified and to get a more accurate picture of the views of the experts.

The purpose of these interviews was to get respondents to express their views and their vision of the future straightforwardly and with a certain amount of risk on their part. The first non-structured part of the information gathering exercise thus consisted of conversations in which the interviewers did not attempt to guide the interviewees but did prompt them to give further information (Thiétart et al, 2007). A semi-structured interview guide specifically tailored to each expert was then designed in order to obtain additional information and examples. This second interview not only allowed each interviewee to clarify his point of view but also to comment on the views expressed by others.

## **4 A More Collaborative Buyer, both Internally and Externally**

### **4.1 More internal and external collaboration: creating a competitive advantage**

A1 says that the role of the *project buyer*, the *cross-buyer* and the *purchasing coordinator* will grow considerably at the expense of *product buyers* or *national buyers*. Buyers will assist project leaders and in some cases even replace them, from one project to the next. “The same person will source all the components for the project and then move on to the next one.” This method differs significantly from that most commonly used, in which one person sources a class of products or services for a large number of different projects. Furthermore, the *project buyer* organises all the Procurement activity for his projects, whereas the *product buyer* is part of a very rigid hierarchy, having to report to several higher levels and being responsible for the tasks delegated to the lower levels. The buyer of the future will therefore need to have a much broader vision of the company. This is borne out by current trends in the internal interfaces with which he has to operate. Rather than imposing new constraints, these actually constitute new prerogatives for buyers. A8 is concerned, however, about the need to manage them with the utmost care, given that there is considerable potential for drift.

Sustainable, responsible and ethical Procurement will also become a standard feature of all supply operations rather than merely a side-line of this function. New forms of collaboration between customers and suppliers are emerging, such as in the automotive, electronics or food processing industries, where supplier integration is increasingly a key factor in strategic success. When it achieves a high level of maturity, the Procurement function has a major influence on the adoption of sustainable practices. Stable partnerships and the need to promote innovation and develop new projects are prioritised over economic calculations. Unilateral decisions in the interests of a single link in the supply chain are no longer made; instead, collective decisions are taken in a bid to consolidate the whole venture.

When the whole process is taken into account, sustainable value is created – and not just an ad hoc basis. It can therefore be argued that the members of the logistics

chain gradually establish partnerships by pooling their resources, risks and profit. The relationships thus established are extremely complex. Information, goods and capital flows need to be managed scrupulously. Collaboration and anticipation yield considerable reductions in transportation costs as the logistical synergies emerge. A2 says that in his firm, the “road map is modelled on the road map used by our suppliers. We adapt to their pace and organise ourselves around their projects and the innovations they can bring to us. If we have no overview of their business, then we have no overview of our own.”

#### **4.2 Managing Procurement expertise: lead project buyer and talent manager**

The buyer recruitment procedure is highly elitist. Employers are looking for specialists with 5 years of post-high school education in either engineering or business. Experience is less important than the initial training, which must be solid and enable young graduates to avoid the traps laid in heated negotiations. Buyers are becoming a pro-active force: by forming strategic alliances between different links in the same value chain, they can access resources, technologies and levers which the firm would not be able to access alone. C4 highlights the creative side of the buyer: “The character of the buyer is increasingly important: the best buyers are the most forceful and resourceful. They have to think outside the box and come up with original solutions. They need to shape, from the countless items at their disposal, the most appropriate response to the needs of their firms. They have an element of intuition that a computer cannot replicate.”

The foresight skills of the buyers of the future, identified together with the Procurement experts we interviewed, are as follows: the ability to operate in virtual environments and to detect faint signs of opportunities or potential threats; the use and optimisation of information and communication technology, especially collaborative platforms, social networks and the virtual communities of practice that constitute strategic intelligence tools, as well as benchmarking, management of expertise, collaboration and facilitation of professional networks; being a global responsibility activist by combining sustainable development, fair trade and ethical work; the ability to bring suppliers on board and secure exclusive innovations; flexibility and multi-tasking, naturally dipping in and out of several projects or cultures; highly mobile, etc; highly creative and spontaneous: questioning existing solutions and with a strong ability to innovate; strong leadership with senior management potential.

For A6, “the new people think that our firms are still living in the Stone Age.” This view is shared by most of the experts we interviewed. In their opinion, firms are lagging behind society. In some cases, it is no longer the private sector that innovates for the public sector, but the public sector that innovates for the private sector. Firms take some time before adopting the new practices: “they are increasingly lagging behind”. A gap is also gradually emerging, but more quickly between traditional buyers and those of the Internet generation: they don’t use the same methods, tools, or even the same language. Given that one side is under the impression that the other side is trying to push them out of the door, we can imagine the tensions and problems involved in managing such a wide variety of profiles.

### 4.3 Towards a virtual, community-based collaborative economy

A5 says that “the crisis made us realise that we needed to treat our suppliers better. We decided to be just as concerned about them as we are about ourselves because we are interdependent. We changed our payment policy and we now settle our invoices in 8 days instead of 3 months.” Companies thus prefer their money to be with their suppliers so that it can be used to innovate and keep them going rather than being parked in the bank to earn interest. Consequently, investment and long-term gains are prioritised over structured finance. Some companies even go as far as paying their suppliers’ suppliers, so that their business will not be put at risk by financial difficulties. The spate of bankruptcies which the financial crisis has produced in a huge domino effect has induced buyers to pay more attention to their strategic partners. However, this type of chaperone policy may be seen as interfering and as a perverse way of extending control, with over-intrusive concern for the way a sovereign company manages its finances.

A3 stresses the importance of modern means of communication, which also play a key role in the new relationships between firms. Companies are gradually organising themselves as professional virtual communities that share the same values and cooperate closely on a wide range of activities. This type of “meta-company” requires a “meta-network”, an intelligent network enabled by the new information and communication technologies. It allows member companies to pool their intelligence, their technical expertise and some of their business costs. It also gives them three precious gifts: ubiquity, omnipresence and omniscience. The more responsive, more flexible joint ventures will have a considerable advantage over individual companies as they are able to share costs and expertise simultaneously. “In a virtual universe of exchange networks, we now need to optimise value added chains between partners” and “roll out new forms of cooperative business.” The fact that these potential suppliers are grouped together in the same community, making it possible to submit problems and directly compare the solutions proposed by each of them, provides incalculable gains in terms of time, money and quality.

## 5 Conclusion

Traditional Procurement practices were an aggravating factor in the consequences of the financial crisis of 2009. They caused value chains to be weakened and called supplier relationship management practices into question. Some firms ended up weakening themselves by overshadowing and oppressing respected players in their own market and which they helped to eliminate. Cooperative management, which is still at the experimental stage, has become a much more credible alternative to the drastic policies of cost-cutting and fierce competition achieved through radical, automated sourcing methods. The Procurement function thus acts as a pioneer in developing new forms of internal and external collaborations and adopting a partnership approach with all key suppliers in order to address the economic crisis and prepare to emerge from it. There is still some scepticism surrounding these new methods, which the drastic situation has helped to highlight and make more popular.

However, in large multinational companies, the profile of buyers has changed dramatically. Their role is no longer confined to satisfying internal needs and automatically reducing costs: it now involves maximising the sustainable value created jointly with their partners. From initially managing transactions and then information, they have now moved on to relationship management, which calls for very specific skills. They have replaced a confrontational, systematically comparative approach with a process of association and coordination. Buyers are no longer content to meet current needs; they now try to anticipate future ones. They run projects in which they need to combine complementary talents in order to co-build a key competitive advantage. The buyer's buying role is increasingly less important: they are becoming mediators who ensure a healthy market; watchmen who anticipate dangers and look out for opportunities; and project managers who prepare for the future of the company and ensure its long-term survival.

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