

Chapter 22 Co-operative Purchasing in the Public Sector

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1. INTRODUCTION

Co-operative purchasing is not new - both in scientific research and in practical application. Historically, forms of co-operation and consortia in purchasing were first discussed by Mitchell (1927) and Gushée and Boffey (1928). According to Sanders and Knapp (1979), the first Ph.D. thesis on co-operative sourcing was written in 1969 at the University of Denver. According to Encarta (1999), co-operatives as we know them go back to the co-operation by the labour movement in the United Kingdom in the 18th century.

In the last decade co-operative purchasing has become more and more well-established in practice (Doucette, 1997; Major, 1997; Nollet, 2003; Sickinger, 1996; Tella, 2005). Reasons indicated for this trend to more co-operative purchasing are shifting agendas from a short-term view to a long-term view, from an internal focus to an external relationship focus, e-procurement developments, and an increased awareness and importance of purchasing activities (Arnold, 1982; Dobler, 1996; Essig, 2000; Leenders, 1998; Lindner, 1983; Schotanus, 2004a).

In this chapter we define co-operative purchasing as the pooling of purchasing related information, expertise, resources or volumes between independent organizations to improve their performances (based on Schotanus, 2005a; Veeke, 2002). More specifically, the concept of co-operative purchasing consists of two central dimensions; on one hand the conceptual focus of purchasing has to change towards a

strategic perspective, on the other hand co-operatives have to be organized as symbiotic structural relationships between purchasing organizations (Essig, 2000).

There is much evidence that co-operatives are popular in public sector procurement. In the health care sector in the United States, there are more than 100 non-profit co-operatives (Pye, 1996). Leenders et al. (2002) report on a study showing 72% of total expenditures in community hospitals in the United States are done through co-operatives. The US-based E&I Co-operative Service, closely linked with the National Association of Educational Buyers (NAEB), is generally seen as the oldest and largest co-operative in the public sector. E&I represents more than 2000 universities, high schools, and hospitals.

Public organizations often have similar organizational structures, similar networks, similar purchasing needs and procedures, mutual trust, (almost) no competition, a common external environment, and one common goal: to maximize the value of the taxpayers' money (Schotanus, 2005a). Mutual trust, goals, and similarities usually make it easier to co-operate.

Since most co-operatives in the public sector are modelled on a non-profit basis, savings are generated with little cost for the participating organizations and as a result, the majority of the savings flows directly to the co-operating organizations (Kenney, 2000). Therefore, we consider co-operative purchasing in the public sector to be a highly interesting concept and this chapter will compare and contrast the IRSP cases to draw out key features of co-operative purchasing.

2. STATE OF THE ART IN CO-OPERATIVE PURCHASING: A LITERATURE REVIEW

As mentioned in the introduction, co-operative purchasing research has a long tradition. This leads to two outcomes: On the one hand, there seems to be a lot of literature available mentioning at least co-operatives or consortia in purchasing. Many Anglo-Saxon textbooks on purchasing and supply management address purchasing consortia. In former times, these were just mentioned without any differentiation between consortia and co-operatives. Nowadays, “co-operatives” often refer to the public sector (Kolchin, 1990) whilst consortia concentrate on the private sector (Burt, Dobler, and Starling 2003, Leenders et al., 2002). A list of sources on co-operative purchasing is available in the Appendix.

On the other hand, research on co-operative purchasing is still in its infancy (Baily, 1994; Dobler, 1990; Essig, 2000; Faes, 1998; Heinritz, 1991). In Germany for example, only 30 sources exist in the literature, most of them dealing only fractionally with co-operatives, one third additionally only in a tactical-operative way without any strategic implications (Essig, 2000). In the Netherlands the situation is much the same, with most sources being found in professional publications and often very descriptive.

Taking a closer look at the literature, we can see a large variety of terminology in use, but also some patterns in the usage and meaning of terms. The most frequently used term is “group purchasing” which often refers to co-operation between dependent departments or organizations (e.g. divisions of a large group). In the public and private health, education, and library sector the term “group purchasing” is most often used. Co-operation between independent companies is called “consortium purchasing” (Macie, 1996; Monczka, 1998). Co-operative sourcing activities in the

retailing sector are traditionally referred to as “buying offices” (Borden and Hayward, 1979; Cash et al., 1995). “Co-operative purchasing” often refers to a co-operation in the public sector (Cavinato, 1984; Monczka, 1998).

Together, these co-operative terms can be called “pooled purchasing”. Figure 22.1 shows a model of the most frequently used English/American terms. Other terms for co-operation in purchasing, procurement or buying are alliance purchasing, bundled purchasing, collaborative purchasing, collective purchasing, combined purchasing, joint purchasing, mutual purchasing, shared purchasing, and this list can go on and on. In the rest of this chapter we use the term co-operative purchasing.

PLEASE INSERT Figure 22.1: Model of English/American Terms NEAR HERE

Despite co-operative purchasing meaning an extra link in the supply chain, savings can be made through increased economies of scale and a reduced number of transactions between suppliers and buyers. Outsourcing some of the purchasing steps to a co-operative may be especially interesting for non-core or common commodities. Co-operative purchasing may also be interesting in markets with a limited number of suppliers. Buyers may counterbalance a clustered supply side by forming a co-operative (Kamann, 2004).

Typical advantages of co-operative purchasing are similar to the benefits of centralized purchasing in an organization (Kivisto, 2003): lower prices, higher quality, lower transaction costs, reduced workload, reduced (supply) risks, and learning from

each other. Typical disadvantages are set-up costs, co-ordination costs, losing flexibility, losing control, supplier resistance, and anti-trust issues (Schotanus, 2005a).

The actual formation of a co-operative starts with decisions concerning the strategic, tactical, and operational objectives (Klein Woolthuis, 1999), expected savings (Nollet, 2005), and the appropriate number of partners (Kivisto, 2003). In the formation phase it is highly important to discuss differences between the partners in e.g. objectives, savings, environment, trust, culture, philosophy, commitment, necessity, and the power balance. The impact of the co-operative on the supply market in the long run should also be considered. A large co-operative may cause suppliers to withdraw from the market or merge with other suppliers (Nollet, 2005), and new suppliers might encounter market entry barriers (Zweig, 1998). The formation and management of a co-operative has been proven to be one of the key barriers to co-operative purchasing (Corsten, 1999) as many different (conflicting) factors play an important role as mentioned above.

When deciding to create a co-operative, decisions concerning the appropriate form of co-operative purchasing are made. The co-operative may be formal or informal; usually the organization is something in between those two ends. These issues may be considered with the help of the three levelled model introduced by Essig (1999) in which the substrate of the co-operative is viewed to consist of decisions concerning:

1) *The basic form of the co-operative*

Based on transaction cost economics and new institutional economics (Coase, 1937; Williamson, 2000) a wide range of different hybrid organizational forms exist for co-

operative purchasing initiatives. These organizational forms can be defined as co-ordination by network, and range between co-ordination by hierarchy and co-ordination by market (Essig, 2003; Jones, 1988; Kivisto, 2003; Schotanus, 2005b; Thompson, 1991). That is why co-operative purchasing initiatives can be organized in quite some different ways (Arnold, 1996; Aylesworth, 2003; Birdie, 2002; Essig, 2000; Hendrick, 1997; Leenders, 1997; Kivisto, 2003; Klein Woolthuis, 1999; Nollet, 2003; Rozemeijer, 2000a; Schotanus, 2005b; Virolainen, 2003; Wade, 2000).

In some cases of co-operative purchasing an organizational form leaning to co-ordination by hierarchy may be suitable, for instance when several organizations work together in a large exceptional purchasing project and all need to agree on the specifications. In other cases an organizational form leaning to co-ordination by market may be suitable, for instance when several organizations have the same purchasing need for electricity and agree to outsource most purchasing steps to an external party or to one of the co-operating organizations (Schotanus, 2005b). In all cases the partners still continue to exist as separate organizations, but they do combine their purchasing power (Essig, 1999a).

2) The architecture of the co-operative form

Within a more intensive and active form of co-operative purchasing an organizational range exists from loosely structured relationships under the control of institutional purchasing managers to highly structured business models with complete autonomy (Aylesworth, 2003). A typical small co-operative is managed by the members, mostly without formal written agreements. There are no penalties for withdrawing from the

co-operative and no minimum quantity of purchasing is required for the members (Corsten, 1999; Hendrick, 1997).

Since efficient information exchange is one key success factor of intensive forms of co-operative purchasing (Doucette, 1997; Kivisto, 2003), it is also necessary to consider whether a performance measurement system and a communication infrastructure is needed. An ideal system for integrating buyers and suppliers might be an Internet platform (Corsten, 1999). Essential information concerns the (stimulation of) utilisation of co-operative contracts. This information could establish commitment from members who perceive that the other members are using the contracted suppliers. When a member believes that the other members are committed to the co-operative, this member will be more willing to commit itself (Doucette, 1997).

3) *The concrete arrangement of the co-operative agreement*

After the decisions on the organizational structure the co-operative purchasing process needs to be defined including checklists and evaluation points. Other important issues may be choosing the right commodities, allocating costs, gains, and risks when organisations differ (in size) (Heijboer, 2003; Schotanus, 2004a; Schotanus, 2005b), discussing juridical aspects (Hendrick, 1997), dealing with supplier resistance, standardizing commodities and procedures in time, and diagnosing the purchasing spends of the partners to find opportunities for co-operative purchasing (Schotanus, 2005b). The co-operative activities can be categorized along two dimensions as shown in Table 22.1.

PLEASE INSERT Table 22.1 (based on Corsten, 1999): Taxonomy of co-operative purchasing tasks NEAR HERE

3. CASE STUDY FINDINGS

In this section the IRSPP cases are analyzed in accordance with the themes presented in the literature review in the previous section to gain insight into co-operative purchasing in current procurement practice in different countries represented within the cases.

Nine of the fifteen IRSPP cases referred to some form of co-operative purchasing. Several of the cases relate specifically to co-operative purchasing between organizations working within the same jurisdiction (e.g. Finland and US states), and others refer to this important strategy for improving the efficiency and effectiveness of public procurement (e.g. UK NHS, Australia). A distinction can be made between co-operation on purchasing (i.e., joint contracting) and co-operation on managing supply (i.e. more strategic reasons for co-operative purchasing such as the Australian Procurement and Construction Council Inc. (APCC), mentioned in the Queensland case).

A range of terminology is employed in the cases. Terminology included co-operative purchasing (US states, Canada, Germany), consortia (Finland, Canada Higher Ed, UK NHS), confederations (UK NHS), shared services (UK NHS, South Africa Province, UN), common services (Canada PWGSC), collaborative competition (Australia Federal-State evaluation case), co-operation for mutual benefit (e-commerce in Australia Federal-State evaluation case), and promoting co-operation and co-

ordination related to procurement (UN). Thus we still see a big variety in the terminology, even within co-operations in the public sector.

One common theme looking across the IRSPP cases was that the main motive behind the consortium approach was achieving lower transaction costs, rather than lower prices. Within this, the main focus was on reducing the process costs associated with supplier selection. Achieving greater efficiency through introducing common processes and automating wherever possible was therefore a key objective.

Since transaction costs were estimated from existing data, reductions have been difficult to quantify precisely, although a one percent saving on the total budget was reported in the Finnish case. Despite some successes, the Finnish consortium had problems with a heavy workload for the Kuopio city purchasing office. There are thought to be further gains to be made for most of the partners, but not for the purchasing office. Therefore no further resource is available at present to devote to consortium activities.

The Finnish case raises issues about incentive and benefit structures. In the UK case, it tends to be that the larger bodies that provide most of the resources for purchasing activities, while the smaller ones derive most of the benefits. And, because of an aversion to cross-funding, the larger bodies are not incentivised to make any further investments. This can be referred to as the hitchhikers' dilemma (Schotanus, 2005a), and in a case in the Netherlands this problem was successfully solved by the relatively large municipality of Groningen co-operating with smaller local governments. When purchasing managers of Groningen negotiate a new contract for their own

organization they ask the supplier whether or not it is possible for the smaller governments to hitchhike on the contract. If the smaller governments hitchhike on the contract, then Groningen receives a small fee from the suppliers to cover the related expenses. Despite a higher purchasing price for the smaller government bodies, reduced tender process times and transaction cost savings remain, which are advantageous both to the supplier and the buyer (Schotanus 2005c).

There is a wide variation in current levels of co-operation between purchasing entities. In some jurisdictions, it is commonplace (e.g., Finland and US); in other cases, it is something that is developing (e.g., UK). In other situations, it is uncommon, and likely to remain so (e.g., Belgium).

Gauteng Province offers a hybrid form of co-operative purchasing through a shared services design. There is also a difference between co-operation around specific products (e.g., US states and German cases), and a whole range of products (e.g., NHS consortia). The case data did not allow an assessment of whether the consortia were co-ordinated more by hierarchy or by market.

The Finland and Canada cases raise the question of the appropriate total purchasing volume of a co-operation. As can be seen in the Finnish and Canadian consortia, there may be a danger in concentrating so much on the demand (consortia) side that too little attention is paid to possible exclusion effects. For example if consortia requirements aggregate expenditure too much as in the South African case, SMEs and MMEs can be excluded. Consortia can encourage elitism, oligopoly, and the artificial

creation of barriers to new entrants. One possible solution to this issue is multiple sourcing.

The Canadian study of successful higher education consortia suggests that individual entities still pursue some individual say in decision making. Despite the fact that individual universities or colleges do not have the resources to develop e-procurement on their own, actors wanted to retain autonomy in this area even where resources were being duplicated. Thus, the degree of autonomy of consortia members is important.

Whilst it was suggested that a good fit of common interests was desirable between consortia members, another success factor was identifying the right commodity to unite the group. It appears that consortia need careful and continuous management.

There was little discussion in the cases of how the purchasing process was arranged, although there did seem to be an evolution of benefits in some cases. The Canadian study of consortia makes the point that initial cost reduction is usually the major motivation for forming consortia. This is borne out in the case of the German electrical supply case, where a one-off saving was achieved. However, the Canadian study goes on to discuss the other benefits of consortia, including shared learning.

The cases also record consortia going through development stages (e.g. Canada). In the NHS case there is more to the agenda in creating confederations than pursuing one-off cost savings. Part of the NHS drive for confederations is to be a more intelligent customer, and this is seen as well in the Canadian public works case where there is pressure to present a more integrated system to clients.

There appears to be varying national levels of affinity with co-operative purchasing. Co-operative purchasing is pursued to varying degrees in different countries, from a few (e.g. Belgium), to being an emerging purchasing model (e.g. UK NHS), to quite prevalent in some jurisdictions (e.g. Finland; US). Theories of differences in national culture (e.g. Hofstede, 1980) may have some explanations of this particular phenomenon, but this is outside of the focus of this chapter. Successful co-operative purchasing appears to involve a high degree of motivation between all involved partners. Policy on co-operative purchasing may be hard to mandate if the culture and history does not support collaborative working. The high levels of compliance with national agreements was noted in the Canadian case, and contrasted with the English NHS case where 50 percent compliance with nationally negotiated contracts is normal. In both the Australian and UN cases there are indications of inter rivalries and turfs creating barriers to consortium approaches. Finland in contrast has a culture and history that favours consortia – even when the benefits are least for the party initiating the consortia.

4. DISCUSSION

The case study findings have been analyzed thematically in accordance with the literature review. All IRSPP cases are looking at public sector co-operative purchasing among organizations with one common goal: to maximize the value of the taxpayers' money. However, the inter-relatedness of organizations varies in the cases. Looking at the German, UN, and UK NHS cases, co-operative purchasing in these instances means buying in collaboration with different parts of the same organizational family (e.g. NHS hospitals joining in supply confederations; UN agencies leading purchasing for certain commodities on behalf of other agencies). In

other cases co-operative purchasing occurs between independent members (e.g. Finnish case). The latter example may require greater consideration of the sorts of partners to be included, and developing contracts, allocations and exit strategies for partners.

The motives for co-operative purchasing were discussed in several cases. Looking across the literature and cases, there seemed to be there seem to be several motives for co-operative purchasing, which depend on the basic form of the co-operative. For instance, knowledge sharing between partners is usually only attained in more intensive and active forms of co-operative purchasing. The different motivations for co-operative purchasing are discussed below.

When motivated to co-operate to achieve volume discounts in one category, the focus is on making initial cost savings through volume discounts by bundling the purchasing volume. There are various ways of doing this:

- optionally: where the consortium leader makes contracts which others can use optionally (US: Local agencies can purchase off contracts let at State level)
- by agreement: where the consortium members commit in using the contracts (Finland)
- by agreement and standardizing needs (German case has high degree of standardization)

Co-operative purchasing often starts with a single category, with few organisations involved and after positive experiences co-operation is likely to increase.

Expanding to volume discounts in several categories, initial cost savings are achieved when new categories are added to the consortia. When the co-operation develops the consortia can get volume discounts achieved by bundling orders, either by order lot volume discounts, or by discounts through ordering directly from the factory instead of a wholesaler (e.g. UK NHS confederations buy a whole range of products / services).

This motivation for collaborative buying is likely to most closely correspond with the traditional form of a purchasing consortium. The motives from volume discounts are realised for categories where there are economies of scale (e.g. the Canadian case refers to 'simpler' and 'boring' products as likely to be more successful).

Collaborative purchasing can aim to reduce transaction costs in other ways than volume discounts, such as sharing expertise in the procurement process, and making the purchasing process more professional and efficient. These changes are especially important for the smaller members. There was evidence of this sort of motivation becoming apparent in the Finnish case in 2005. In the others cases there was no clear evidence of this type of action.

Collaborative purchasing can aim to reduce transaction costs in the fulfilment process. The motive in this instance is centres on collaboration through on e-procurement and distribution issues. As well as improving the information flow between members there

is also a need to develop physical distribution. The transaction costs in the information flow focus on ordering (sending orders), e-ordering (enabling suppliers to receive orders electronically), e-receipt, and e-invoicing (receiving invoices electronically). Transaction costs in physical distribution include delivery from the supplier to the door, delivery to the point-of-use and transforming pick-ups to organised logistics.

Several cases show changes to e-procurement and distribution. In the Finnish case transportation improved, whereas the e-procurement software was not so successful. In Canadian higher education case the members decided not to follow an e-procurement route. In the South African case a software package was implemented to improve e-procurement. In the UN case the UN Web-Buy-software is in widespread use between members.

Partners are motivated to collaborate to share knowledge and expertise. It can also mean joint investments in software and services and making software and services accessible for members, beyond what they could individually afford. The UK NHS case aspired to use co-operative purchasing to be 'a more intelligent customer', and the Canadian case wished to present an integrated system to clients.

Different consortia are likely to have different motives for purchasing co-operatively, and the relative importance of motives will change with the context. Looking across the cases each co-operative purchasing context may have a tendency towards a certain underlying motivation for collaboration.

The Canadian higher education case raises the question whether there is a limit for co-operative purchasing, as *'Many experienced purchasers suggest . . . that there is a limit to how much groups can continue to squeeze the market for lower prices alone.'* In a survey of motives for purchasing co-operatively, the Canadian case survey responses revealed thirteen objectives of purchasing cooperation, but emphasized purchase price savings and process efficiencies as the catalyst in consortium formation. This suggests whilst other drivers may exist, savings and process efficiencies are key motives for the Canadian consortia.

5. SUMMARY

This chapter has reviewed the history of co-operative purchasing, its definition, and the motivations for purchasing co-operatively, with a particular focus on the public sector. The state-of-the-art in co-operative purchasing is explored in a literature review that considers quantity versus quality research in the field, terminology in particular sectors, and the formation and management of purchasing co-operatives (basic form, architecture and arrangement of co-operatives). These themes drawn from the literature were used to structure thematic cross-case comparisons of IRSP case study data. Common motivations for co-operative purchasing were presented, suggesting that different cases and contexts may lead to different motives for purchasing co-operatively. Co-operative purchasing is likely to continue in the public sector, allowing purchasing to be organised to represent a 'middle tier' of purchasing to bridge the gap between national and local level purchasing.

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APPENDIX

Please insert Table 22.2 Sources available on co-operative purchasing near here