

Cooperative purchasing within the United Nations

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Abstract / Summary

To support cooperative purchasing within the United Nations we carried out an empirical study in 2004, mainly to define cooperation forms, and to identify and rank motives and critical factors for cooperation. Important reasons to work together turn out to be lower prices and transaction costs, sharing information, and learning. Reasons *not* to work together are i.e. lack of opportunity or priority to purchase cooperatively. Most of the literature in the area of critical factors focuses on factors such as trust and support. Based on our study, we also emphasize the importance of choosing the right products and services. Furthermore, we observe what we call the hitchhikers' dilemma. This dilemma deals with small agencies hitchhiking on contracts from large agencies. For large agencies there may be no incentive to allow hitchhiking. For small agencies hitchhiking can be very interesting though. Possible solutions to this problem are savings allocation mechanisms. The paper concludes with suggestions for further research.

Key words

Cooperative purchasing; United Nations; forms of cooperation; hitchhikers' dilemma; motives; critical success factors.

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Introduction

Cooperation is as old as the human society and has been studied extensively (Harrigan, 1985; Hakansson, 1987; Kamann, 2004). Cooperating in the specific field of purchasing is as old as ancient Egypt and Babylon (Wooten, 2003). The recent attention to the concept of cooperative purchasing as we know it goes back to the cooperation between farmers in 19th century England. Here cooperative purchasing is defined as *the sharing or bundling of purchasing related information, experiences, processes, resources or volumes to improve the performance of all participating organisations*.

Despite its long history, cooperative purchasing has received relatively little attention in (purchasing) management research (Laing, 1997; Mudambi, 2004). The lack of research attention seems unjustified with cooperative purchasing being more and more well-established (Doucette, 1997; Major, 1997; Nollet, 2003; Sickinger, 1996). Therefore it is useful to search for differences and to validate insights from general alliance and collaboration literature applied to the specific context of cooperative purchasing.

Reasons indicated for the trend to more cooperative purchasing are shifting agendas from a short-term view and internal focus to a long-term view and external relationship focus, e-procurement developments, increased competition, and an increased awareness and importance of purchasing activities (Arnold, 1982; Dobler, 1996; Essig, 2000; Leenders, 1998; Lindner, 1983; Schotanus, 2004). These reasons are identified by many different organisations. One system of such a set of organisations is the United Nations (UN) system. The UN have been practicing and studying cooperative purchasing for decades now. To provide recommendations for future UN policy on the topic of cooperative purchasing we carried out an empirical study in 2004. The overall goal of this study was to analyse current and future practices of cooperative purchasing in the UN.

About the United Nations

In 1945, representatives of 50 countries met to draw up the United Nations Charter. The main purposes of the UN are to maintain international peace and security, and to cooperate in solving international problems. Today, nearly every nation in the world belongs to the UN, with membership now at 191 countries (UN, 2005).

The UN system encompasses a wide variety of organisations such as UNICEF and the World Health Organisation, and covers a \$5,084 billion procurement market (IAPSO, 2003). Each of the larger agencies has their own procurement entities with different structures. Many UN agencies have also delegated authority to their respective country offices to undertake procurement up to a certain financial limit (Walker, 2004). This complex set of massive, multinational, very political organisations is reputedly bureaucratic. Consequently, opportunities for change in procurement are considerable, but fraught with difficulties.

Despite the different activities and sizes of the UN agencies there are many of the same (common) goods and services purchased by most of these agencies, representing a millions market across the whole world for many items. For that reason the UN is continually researching cooperative purchasing opportunities and trying to harmonise the total procurement system on several organisational levels. For instance by facilitating e-procurement solutions to cooperative purchasing (i.e. <http://www.unwebbuy.org>) or collecting long term agreements from individual agencies and making them available for the total UN system. Cooperative purchasing initiatives are considered to be an important source of cost savings, resources, and learning opportunities in the UN system. Few organisations have all of the

resources on their own needed to function effectively in the current dynamic landscape (Ireland, 2002).

Common principles are applicable throughout the system. The most significant common denominator for the UN system is that it operates with public funds (Harland, 2003). However, there is no single line of control for procurement within the UN. For that reason, the success of cooperation depends on persuasion, networking, and partnerships, which is making it more difficult for the UN to benefit optimally from its substantial buying leverage.

Research objectives

The objectives of this paper are to describe current practices of cooperative purchasing in the UN, to define common forms of cooperation, and to identify and rank critical factors and reasons (not) to cooperate from small to large agencies. The first objective applies to the specific context of the UN. The other objectives apply to cooperative purchasing in general in the public sector, being relevant both to the theoretical and practical development of cooperative purchasing.

This paper is part of the empirical part of a PhD-project concerning horizontal cooperative purchasing. For this research project we recognise an empirical and an analytical approach. The empirical approach serves as an inspiration, validation, and background for the analytical approach. More specific, the empirical approach recognises three theory career stages: discovery (Reichenbach, 1938), pursuit, (Laudan, 1977) and justification (Reichenbach, 1938). We discuss our approach in this paper into more detail in the next section.

Methodology

In order to get a more complete understanding of cooperative purchasing within the UN we first carried out several interviews at the Inter-Agency Procurement Services Office (IAPSO) of the United Nations Development Programme (UNDP) in the context of discovery and pursuit. IAPSO serves as a focal point for the UN system on (cooperative) procurement issues (UNDP, 1998).

Based on these first interviews and several other studies related to working together (Aylesworth, 2003; Doucette, 1997; Essig, 2000; Hendrick, 1997; Major, 1997; Nollet, 2001; Pye, 1996; Sickinger, 1996; Virolainen, 2003; Walker, 2004) we built a draft questionnaire with a mix of question types in the context of pursuit and justification. The questionnaire was first sent to a focus group to test the questions. After this step the questionnaire was sent to all members of the United Nations Inter Agency Procurement Working Group (UN/IAPWG), consisting of the heads of procurement across 47 UN agencies. 19 questionnaires (excluding IAPSO) were returned, representing a response rate of 40% (see table 1). Because of lacking data regarding the number of (procurement) personnel of several UN agencies we categorised the agencies according to their annual procurement volume.

The final phase of our study consisted of a report of the survey for all the UN heads of procurement, and a presentation of the findings at a workshop at the 29th annual UN/IAPWG meeting. The topic cooperative purchasing is a recurring item on the agenda of this meeting to initiate and evaluate cooperative initiatives. The final report of the study was distributed to all UN/IAPWG members with a final request for feedback on any perceived discrepancies and on key issues to compensate for nonresponse bias and possible misinterpretations. This paper was distributed to IAPSO to verify the final empirical and analytical results.

Table 1: Total procurement by UN agencies in 2003

Category	annual procurement	number of agencies	% of total procurement	respondents
large	> 150 million USD	8 (17%)	80%	5 (63%)
medium	10 < 150	16 (34%)	19%	6 (38%)
small	< 10	23 (49%)	1%	8 (35%)
total		47 (100%)	100%	19 (40%)

Results and discussion

In this section we describe and discuss the results from our study. Without going into detail we first give some information about the contextual factors of the respondents. Most UN agencies (74%) are already actively involved in cooperative purchasing initiatives. All large agencies (100%) are active in one or more collaborative initiatives. Large agencies are involved in more cooperative initiatives than small agencies (significant difference between the means of the normal distributed scores with unequal variances at $p=0,051$ in an independent samples 2-tailed t-test). Indicated reasons are that large agencies have more resources, and purchase more and different products and services.

Most UN agencies indicated being interested in sharing purchasing information (74%) and (supplier) experiences (89%). 64% of the cooperative initiatives is growing in purchasing volume, 21% is stable and 14% is shrinking in size. Growing initiatives have the overhand in all categories from small to large agencies. Parts of these results are confirmed by an earlier study by Harland (2003). Harland found that 76% of the IAPWG member agencies use shared contracts, and 47% lead contracts on behalf of other UN agencies. Table 2 shows more contextual factors of the responding agencies.

Table 2: Contextual factors of the responding agencies (n=19)

factor	description
respondents	Most respondents have the job title <i>head</i> or <i>chief procurement</i> (69%). Some of the respondents from small (25%) and medium sized (20%) agencies are <i>directors</i> .
procurement personnel	84% indicated that they have less than 10 strategic FTEs in the procurement function. 79% indicated having less than 20 tactical FTEs and 40 operational FTEs.
purchasing spend under control	All large agencies indicated having reasonable (61 - 80%) to good control (81 - 100%) over their purchasing spend. Most small agencies (75%) also indicated a good control. Medium agencies score somewhat lower (33% good control, 33% reasonable control).
assessment of purchasing competence	42% of the respondents indicated having a better purchasing competence than most others. 42% indicated being even very good.
organisational structure	Almost all small agencies are organised centrally. Medium and large agencies are organised decentral with lead buyers or are organised centrally.

Forms of cooperative purchasing

To be able to categorise and analyse forms of cooperative purchasing we propose a framework as shown in figure 1 (Schotanus, 2004). *Intensiveness* on the vertical axis is defined as the extent to which an organisation is compelled to perform an 'active' role in the cooperative initiative. The *number of activities* on the horizontal axis ranges from undertaking one project to undertaking several projects within the same initiative.

Figure 1: Forms of cooperative purchasing and typical potential advantages

	↑	Convoy economies of scale sharing information process improvement <i>typical:</i> exceptional project		F1-Team economies of scale sharing information process improvement <i>typical:</i> learning and standardisation
intensiveness			Carpooling economies of scale sharing information process improvement <i>typical:</i> lead buying and specialisation	
		Hitchhiking economies of scale sharing information <i>typical:</i> quick wins and piggy-backing		Bus Rides economies of scale sharing information <i>typical:</i> third party
		→ number of cooperative activities		

We identified each of the forms within the UN. The most popular forms are carpooling, hitchhiking, and bus rides. Carpooling involves 'outsourcing' the procurement of some items to a partner: each item is purchased by the most suitable agency or external party. Hitchhiking involves agencies establishing contracts on their own specifications, which may be used by other agencies. Bus rides usually involve long term hitchhiking made possible by IAPSO or external parties. IAPSO may establish agreements for common items on behalf of and for use through e-procurement or direct use by the entire UN. The bidding process is based on the aggregate procurement volume, in close cooperation with the respective major UN buyers (Harland, 2003). Other typical examples of bus rides are i.e. regional purchasing agencies (Aylesworth, 2003). Intensive cooperation forms usually involve agency representatives meeting regularly to discuss cooperative projects. These projects regularly involve some

representatives of all partners and together they carry out several steps of the procurement process. Intensive cooperation forms are uncommon in the UN. Indicated reasons are organisational dissimilarities, large mutual distances, and related coordination costs.

Each of the forms (or combinations) has its own critical factors and typical potential (dis)advantages. With increasing advantages, disadvantages also tend to increase. Some items suit very well with certain forms and certain forms suit very well with certain organisation types and their (top) management support. The cooperative procurement of a common item as i.e. electricity usually suits well with less intensive cooperation forms. More specific goods and services as temporary employment usually suit well with more intensive forms of cooperative purchasing. Furthermore, the optimal number of participating organisations in one initiative usually decreases with an increasing intensiveness, as coordination costs typically tend to increase more than linear. The degree to which an organisation can influence specifications will usually increase with an increasing intensiveness. Especially in intensive cooperation forms it is highly important to select the right partners (Ireland, 2002).

The hitchhikers' dilemma

Large agencies generally profit less from hitchhiking on contracts from other agencies, as more specific contracts might be necessary or contracts based on the aggregate procurement volume might be more interesting. Small agencies are often involved with bus rides or hitchhiking, as they lack economies of scale on their own. Thus for small agencies it can be very interesting to hitchhike on contracts from large agencies (Schotanus, 2004). However, for large agencies there may be no direct incentive to allow small agencies to hitchhike on their contracts. We define this dilemma as the hitchhikers' dilemma. A savings allocation mechanism could compensate this issue and stimulate the hitchhiking concept. Compensation could take place by allocating some of the cooperative gains of the smaller agencies to the larger ones, making hitchhiking also interesting for larger agencies (Schotanus, 2004).

Reasons (not) to purchase cooperatively

Purchasing together can be explained by several theories as transaction cost economics, resource-based view or organisational learning theory (Ireland, 2002). Specific motives based on different theoretical concepts for working together are shown in table 3. This table shows the motives (not) to purchase cooperatively within the UN. The categories and related elements are based on the work of several authors (Arnold, 1982, Hendrick, 1997; Inkpen, 2000; Ireland, 2002; Nollet, 2003; Rozemeijer, 2003). Here we do not distinguish between the several cooperation forms, the correlations between the reasons, and the time factor.

Avoidance of parallel competition on key items at peaks of emergencies is not included in the table, but is also indicated as an important reason to work together. Another reason not specifically mentioned in the table is reducing tender process time. When purchasing a new item X several procedures have to be taken care of. When hitchhiking on a contract for item X from another agency these procedures are not necessary.

Table 3: Indicated reasons (not) to purchase cooperatively (n=17)

Reasons to purchase cooperatively	S	M	L	Reasons not to purchase cooperatively	S	M	L
utilising economies of scale				expecting costs to be high or lacking resources			
1. lower prices	4,8	4,4	5,0	16. satisfied with current suppliers	3,5	3,3	3,5
2. lower transaction costs	4,5	4,3	5,0	17. expecting costs to be high	2,8	4,0	2,5
3. strengthen negotiation positions	4,2	4,5	4,6	18. lacking resources	3,3	3,0	2,0
4. reduce workload* (M>S)	3,5	4,8	4,2	19. changing suppliers too expensive	2,8	2,3	2,3
5. spread and reduce (supply) risks	4,0	3,3	3,3	20. we are a small player* (S>L)	3,2	2,3	1,0
6. because of budget cuts* (S and M>L)	3,2	4,0	1,5	loosing flexibility or control			
sharing information or knowledge				21. decreased flexibility	3,4	3,3	2,8
7. share prices and related information	4,2	4,6	3,8	22. loose control	3,2	4,0	2,5
8. share experiences with suppliers	4,2	4,0	3,5	lacking trust, support or culture			
improving internal processes or sharing resources				23. no committing organisation** (S>L)	3,5	2,8	2,0
9. learn from other agencies	4,0	4,3	3,8	24. no cultural support	2,5	2,0	3,0
10. improve suppliers collectively	3,8	4,3	3,8	25. no organisational support* (S>L)	3,3	2,3	1,8
11. gain access to procurement expertise	3,3	4,2	3,8	26. no trust in others' competence	2,8	2,7	2,0
12. specialise in typical items	3,0	4,3	3,0	27. no management support** (S>L)	3,0	2,3	1,8
13. extend collaboration to other fields	3,5	3,2	2,5	28. disclosure of sensitive information	2,6	2,3	2,0
14. cooperating as a means to reorganise	3,0	3,0	2,3	29. antitrust (legal) issues	2,4	2,5	2,0
15. lacking own specific knowledge	2,0	3,3	3,0	30. fear of parasites	2,3	2,7	1,8
				31. supplier resistance	1,4	2,5	1,8
				unknown with cooperative purchasing concept***			
				32. did not have the opportunity** (S>L)	3,5	3,0	1,3
				33. did not discuss the concept	3,0	2,8	1,8
				34. concept has no priority* (S and M>L)	2,8	3,0	1,0

note: measured on a five point Likert scale from 1 (unimportant) to 5 (important)

** significant difference between mean ratings of normal distributed scores of small (S), medium (M) and large (L) agencies at $p < 0,05$, or ** $p < 0,1$ in a post hoc LSD-test*

**** the 3 reasons are correlated to some extent: Spearman's coefficient $> 0,720$ at the 0,01 level (1-tailed)*

Some significant differences are found between the mean ratings of small, medium, and large agencies. Interesting differences concern organisational commitment (23), support (25 and 27), and lack of opportunity and priority (32 and 34). These reasons not to work together are more important to small agencies than larger ones. This is notable given the hitchhikers' dilemma. When reasoning from this dilemma, small agencies should embrace cooperative purchasing. Apparently other aspects also play a role in the UN context. More research will be necessary to study the influence of these aspects as loosing flexibility (21) and control (22). Smaller agencies might i.e. be more vulnerable to these reasons than large ones.

We also found several significant differences between the mean ratings of agencies *not* involved (A; n=3) and involved (B; n=13) in cooperative initiatives. Surprising differences are found at the $p=0,05$ level with expensiveness of changing suppliers (reason 19; mean B=2,9; mean A=1,3), and expecting costs to be high (17; B=3,6; A=1,3). Apparently these aspects are not important reasons for group A not to purchase cooperatively. Differences are found as well with lacking opportunity (32; A=4,5; B=2,1; $p < 0,05$), lacking priority (34; A=3,5; B=2,0; $p < 0,1$), and lacking management support (27; A=3,0; B=2,2; $p < 0,1$). These reasons might explain why group A does not purchase cooperatively.

Critical success factors

Table 4 shows the results of the analysis of perceived critical factors for managing cooperative initiatives. This analysis does not focus on different forms of cooperative purchasing, the

organisational structure of consortia, the correlations between the factors, and the time factor. Just one significant difference was found between the mean ratings of small, medium and large agencies. This concerns the factor achieving integral savings (3).

Table 4: Indicated critical factors for managing cooperative initiatives (n=13)

Viewpoint cooperative initiative	S	M	L	Viewpoint individual agencies	S	M	L
1. choose the right products and services	4,8	4,7	4,8	14. organisational support	4,3	5,0	4,5
2. mutual trust and an open relationship	3,8	5,0	5,0	15. need and will to cooperate	4,8	4,3	4,5
3. achieve integral savings* (S and L>M)	4,8	3,3	4,6	16. competent purchasing organisation	4,8	4,3	4,5
4. communicate and keep up-to-date	3,8	4,3	4,5	17. sufficient resources	4,5	4,7	4,3
5. performance measurement**	4,2	4,0	4,4	18. dedication, commitment	4,5	4,3	4,5
6. voluntarily participation	3,8	4,7	4,0	19. (top) managerial support	4,7	4,3	4,3
7. similar organisation and philosophy	4,2	4,3	3,5				
8. be able to deal with supplier resistance	3,4	4,0	4,0				
9. promote successes and quick wins	3,8	3,7	3,8				
10. commit appointments to paper	3,2	3,7	4,3				
11. costs and gains allocation mechanisms	3,6	4,0	3,3				
12. safeguards to prevent antitrust issues	3,4	3,3	2,5				
13. consortium not too large or small	3,2	3,0	3,2				

note: measured on a five point Likert scale from 1 (unimportant) to 5 (important)

**significant difference between mean ratings of normal distributed scores of small (S), medium (M) and large (L) agencies at $p < 0,1$ in a post hoc LSD-test*
***performance measurement is considered more important when a cooperative initiative becomes older*

First of all we emphasise the importance of choosing the right items (1). Most of the literature in this area focuses on factors such as trust (2), similarity (7), and support (14, 18, and 19) (i.e. Hendrick, 1997; Hoffmann, 2001; Ireland, 2002). Our results do confirm that to maximise cooperation among the partners a trust-based relationship must be developed (Ireland, 2002). Lacking trust is however not indicated as an important reason not to work together (see reasons 29 and 30 in table 3). Therefore it is indicated that antitrust safeguards are just neutrally important. Nollet and Beaulieu found the same results in an empirical study in the public sector (2003). To the contrary, Hendrick found in his study in the private sector that safeguards are important in that context (1997). Thus the factor antitrust safeguards seems less important in the context of the public sector than the private sector.

The indicated importance of allocation mechanisms (11) seems low. Especially as it is indicated that some agencies have to deal with the burden of some initiatives, have higher transaction costs and administrative issues, and lower savings. These effects could be compensated by using a commonly accepted allocation mechanism. However, the respondents experienced difficulties with reaching agreement on the allocation rates. Further research to these aspects of allocation mechanisms will be necessary.

All individual organisational factors are on average indicated as important. It is remarkable that having a competent purchasing organisation (16) is also indicated as important. Especially agencies with a 'lesser developed' purchasing organisation could learn and gain from collaborative initiatives. These gains could be divided among all participants. It is important that at least one of the participating agencies acts as a champion (18). Support, commitment, and competence should be high for this agency. Table 4 shows moreover that it is not only important to take care of the organisation of the consortium itself, but also that the individual agencies should take care of relevant internal issues. These individual issues apply particularly to intensive forms of cooperation. Finally, both content-oriented and process-oriented factors play an important role in cooperative purchasing.

Significant differences between the mean ratings of agencies *not* involved (A; n=2) and involved (B; n=11) in cooperative initiatives are found with several factors. At the $p=0,05$ level we found that achieving integral savings (3) is more important to group A (mean=5,0) than B (mean=4,3). Differences are also found with organisational support (14; B=4,7; A=4,0)

and sufficient resources (17; B=4,6; A=4,0). Of course our sample is small, but a study by Hoffmann and Schlosser among SMEs confirms our results (2001).

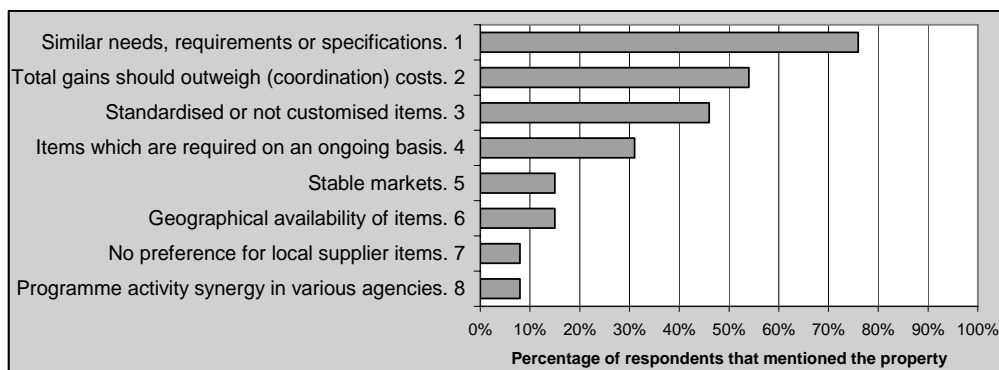
At the $p=0,15$ level we found that committing appointments to paper (10) is more important to group B (mean=3,9) than A (mean=2,5). Hoffmann and Schlosser also found in their strategic alliances study that the precise definition of rights and duties was *not* noticed by 10,9% of the successful companies and 46,7% of the unsuccessful companies (2001). On the other hand, Hendrick found in his study that formal written agreements are *not* very important to organisations involved in consortia, while those with *no* consortium experience are of the opinion they are an important factor (1997). Again, more research to i.e. the contextual factors will be required to explain these differences.

Products and services purchased cooperatively

As choosing the right items is indicated as an important factor we discuss this topic into some more extent in this final section. Appendix A shows the items purchased cooperatively within the UN. Most of these items belong to the major items procured by the UN. Both *low* value and *high* quantity items and *high* value and *low* quantity items are indicated as suitable for cooperative purchasing. For most of the items cooperative UN initiatives already exist. However, some interested agencies are not yet part of these initiatives.

Figure 2 gives the indicated properties that make products suitable for cooperative purchasing within the UN system. A remarkable outcome concerns items being required on an ongoing basis (4). Items *not* required on an ongoing basis are purchased cooperatively in several Dutch initiatives (Schotanus, 2004). Here the total savings are proven be high as none of the partners possesses enough skills on their own for purchasing these exceptional items. The restrictions are that all partners should have similar needs in a certain time frame and the gains should outweigh the costs. The costs may be relatively high as these kinds of projects are usually onetime events and setup costs cannot be spread over multiple projects. We interpret the stability property (5) by assuming that consortia usually respond slower to market changes than individual agencies, because it may be more difficult to reach consensus.

Figure 2: Indicated properties that make products suitable for cooperative purchasing (n=13)



Conclusion

This paper notes (1) several cooperation forms, (2) motives to cooperate, and (3) critical factors for cooperative purchasing. First, one specific form of cooperation concerns hitchhiking (a.k.a. piggy-backing). The hitchhikers' dilemma deals with small agencies hitchhiking on contracts from large agencies. For large agencies there may be no incentive to allow hitchhiking. For small agencies it can be very interesting to hitchhike though. Savings allocation mechanisms could compensate this dilemma and stimulate working together.

Second, important reasons to work together turn out to be lower prices and transaction costs, sharing information, and learning. Reasons *not* to work together are i.e. lacking organisational commitment and support. Those are more important to small agencies than large ones. This is notable given the hitchhikers' dilemma. When reasoning from this dilemma, small agencies should support working together. Another difference is found with expecting costs to be high. This aspect is more important to agencies involved in cooperative initiatives (group B) than those that are *not* involved (group A). Differences are found as well with lacking opportunity or priority to purchase together. These reasons are more important to group A than B and might explain why group A does not purchase cooperatively.

Third, most of the literature in the area of critical factors focuses on factors such as trust and support. Based on our study, we emphasize that choosing the right products and services is also important. The results show furthermore that it is not only important to take care of the organisation of the cooperative initiative itself, but also that the individual agencies should take care of relevant internal issues. The factor antitrust safeguards seems less important in the context of the public sector than the private sector. The factors organisational support, sufficient resources, and committing appointments to paper are more important to group B than A. Hoffmann and Schlosser found the same results in their study (2001). Hendrick on the other hand, found that written agreements are *not* very important to organisations involved in consortia, while those with *no* consortium experience indicate it as an important factor (1997).

Of course our sample is specific and small ($n \leq 19$). Therefore more research will be necessary for justification in common practice. However, in the context of (internationally operating) public organisations the results are still very relevant. Our further research will involve i.e. studying successful and unsuccessful consortia. We also plan to investigate the relationship between flexibility and control, savings allocation mechanisms and related fairness of allocation rates, and other critical factors for small and large organisations.

Appendix A: Products and services purchased cooperatively

product or service (n=19)	purchased cooperatively by	new interested agencies	total 2 nd and 3 rd column	purchased by	degree of interest
telecom services / equipment	32%	32%	63%	81%	4,3
computer software	37%	11%	47%	96%	4,4
air plane tickets and transportation	21%	21%	42%	no data	4,8
computer hardware	21%	21%	42%	96%	4,6
motor vehicles / parts	21%	21%	42%	92%	4,1
office supplies	16%	26%	42%	92%	4,0
medical equipment / supplies	21%	16%	37%	54%	4,3
paper (products)	21%	16%	37%	88%	4,2

insurances	16%	21%	37%	no data	4,0
security services	21%	16%	37%	no data	3,8
delivery services	11%	21%	32%	73%	4,3
freight forwarding / logistics	11%	16%	26%	73%	4,5
copiers	5%	21%	26%	88%	4,4
fuel or oil (products)	11%	16%	26%	50%	3,7
office furnishing	16%	11%	26%	92%	3,2
cleaning services	11%	11%	21%	no data	3,7
internet access	5%	16%	21%	no data	3,6
vaccines	16%	5%	21%	46%	3,5
electronic data process service	11%	11%	21%	77%	3,5
contraceptives	16%	5%	21%	31%	3,0
technical services	11%	11%	21%	no data	2,8
shelter items	5%	11%	16%	31%	4,3
electricity	5%	11%	16%	no data	3,5
laboratory equipment / services	11%	5%	16%	50%	3,0
pharmaceuticals	11%	5%	16%	58%	2,8
subscriptions	5%	11%	16%	no data	2,8
building / construction services	5%	5%	11%	81%	3,0
water (supply systems)	5%	5%	11%	31%	2,8
syringes / needles	5%	5%	11%	46%	2,0

The 2nd column indicates how many agencies purchase these items cooperatively in the current situation. The 3rd column indicates how many agencies are (very) interested in joining a new or existing cooperative initiative for this item. The 4th column indicates how many of all UN agencies approximately purchase these items, individually or cooperatively. The final column indicates the average scores of how interested the respondents are in collaborative initiatives for these products. This column was measured on a five point Likert scale from 1 (not interested) to 5 (interested).

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