

***Country Paper SAI Norway***  
***Performance audit on public e-procurement in Norway***  
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## **0. Summary**

In autumn 2003 and spring 2004, the Office of the Auditor General of Norway carried out a performance audit on the government's investment in e-commerce through a public sector marketplace. The project was organised as a programme, and the audit focused on the effectiveness of the programme and possible reasons for the insufficient achievement of goals.

The audit revealed that the effectiveness of the Norwegian e-commerce programme was poor in terms of achievement of goals. However, the targets were set in the dot-com era, when there was widespread optimism about the opportunities afforded by e-business, and a comparison with nine other public sector marketplaces shows that only two of these had a higher turnover. The audit also revealed that the low effectiveness must be regarded in the light of the fact that:

- The programme's targets were not linked to the overarching goal of improving the efficiency of government procurement. The targets were also difficult to verify, and the aspect of benefit realisation had been given little attention.
- There were inadequate resources available for the programme.
- The programme was not anchored at a high enough level in the affected ministries and public sector entities.
- Theoretical aspects of procurement were not focused on sufficiently in the project.
- The programme did not focus sufficiently on the necessary organisational changes that would have to be undertaken as a result of the introduction of electronic commerce systems (change management).
- The business model for the programme did not do enough to encourage potential suppliers to take part in the project. The programme did not establish forums for collaboration between buyers and suppliers, nor did it develop incentive schemes that could contribute to the activation of the suppliers (and thus more transactions).

## **1. Introduction**

Procurement constitutes a considerable part of the public sector's total budgets, and the government is a very important customer for trade and industry. Each year, the public sector purchases items to a value of around NOK 217 billion (approx. 25 billion euro). Measured as a percentage of the gross domestic product, public procurement constitutes approx. 18 %. Economically, it is important that efforts are made to encourage efficient public procurement. This will entail optimum use of resources in both public sector and private industry.

Electronic marketplaces are one of several means for enhancing the efficiency of public procurement. The advantage of purchasing via electronic marketplaces is that both the buyer and the seller achieve reduced transaction costs by trading electronically. Electronic marketplaces also allow for a reduction in processing costs. The Norwegian parliament, the Storting, expects electronic commerce to be able to reduce the total expenditure on *purchases related to operation* by 10%.<sup>1</sup>

In 1999, the Norwegian *Ministry of Labour and Government Administration* initiated a four-year programme for electronic commerce in the public sector, where the establishment of an electronic marketplace was central. The economic framework for the programme was calculated to NOK 20.6 million. The main objectives for the programme were to reduce procurement-related costs and increase the quality of the public procurement process. The released resources ought then contribute to public sector entities being able to concentrate more on their primary tasks – providing services for the users.

The concrete objectives for the e-commerce programme in Norway were defined at the height of the dot-com wave, at a time marked by an optimistic view of e-business. Both quantitative and qualitative targets were defined for the programme. The quantitative targets were:

- 50 % of all purchases should be carried out via electronic procurement processes by the end of 2003.
- 20 % of the value of procurement should be purchased via electronic procurement processes by the end of 2003.

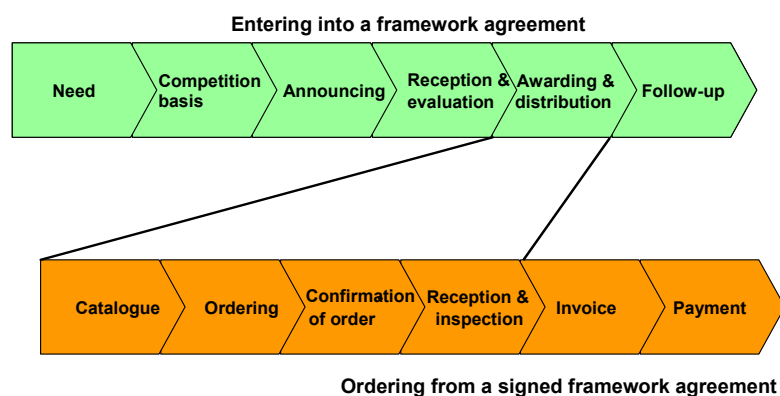
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<sup>1</sup> Operating purchases represent approximately 30 % of the total volume of procurement in the public sector in Norway.

The qualitative targets defined for the public sector entities that use the programme's IT solution were that the e-procurement solution should:

- Free up key staff for primary tasks
- Raise the level of competence regarding procurement
- Allow public sector entities to be more demanding as customers and achieve favourable conditions in the supplier market
- Reduce old stock and errors in acquisitions and maintenance
- Improve the public sector entities' financial control

The focus of the public sector marketplace is fixed on a limited part of the overall purchasing process. It is based on signed framework agreements and allows establishment of electronic catalogues, ordering from catalogues, confirmation of orders and reception / inspection. Other aspects of the purchasing process, such as entering into and following up framework agreements and processing invoices / bookkeeping are beyond the reach of the marketplace. This is illustrated in the figure below:



## **2. Audit questions and methods**

The audit questions in the investigation had two main focuses: (1) determine the degree of achievement of goals in the programme, and (2) identifying the causes of failure to achieve the defined targets.

Before deciding to carry out a performance audit in the area, the Office of the Auditor General already had indications that the targets for the programme had not been met. Only 25 of more than 500 Norwegian public sector entities used the electronic system as of March 2004, and

trade via this marketplace constituted only a small fraction of the public sector's total *operating purchases*. Audit question 2 – discovering the causes of the poor performance of the programme – was therefore given main priority in the audit.

There are clear criteria linked to audit question 1 (degree of effectiveness), and this aspect of the audit was relatively unproblematic. Statistics for the total turnover and transactions via the marketplace were compared with turnover figures and transactions in the Norwegian public sector to give the degree of achievement of the quantitative targets. The qualitative goals were studied by collecting documentation from the buying organisations by means of interviews with individual buying organisations and through a survey conducted among all the purchasers.

Audit question 2 (reasons for poor performance) was more demanding in terms of audit methodology. This is partly because there are few public standards (criteria) for how electronic marketplaces should be established and run. Secondly, there are currently few examples of successful public sector marketplaces in other countries that can serve as a benchmark for best practice in an audit.

Initially, the auditors had developed some hypotheses to illuminate the poor degree of achievement of goals in the programme. The task consisted in identifying critical success factors for the establishment and operation of public sector marketplaces. The criteria were derived from literature within IT project management, organisation science and purchasing theory, national and international IT evaluation reports and through meetings with experts in the area in Norway and abroad. Some of the main criteria included in this audit are:

- Adequate resource framework (finances, staff, expertise)
- Anchoring the programme / measures at a high level in ministries and public sector entities
- Development and use of a structured method to chart current purchasing practice and against that background define a new ideal purchasing process
- Definition of realistic, verifiable profit targets
- High focus on change and reorganisation work to realise profits in the affected public sector entities
- Business model that encourages participation

The analysis of the causes was carried out on the basis of data gathered through document analysis and interviews with a selection of buyers and suppliers on the government's marketplace. In addition, four (electronic) surveys were carried out among buyers and suppliers and potential buyers and suppliers on the marketplace. We also did a benchmarking study aimed at public sector marketplaces in nine other countries. The purpose of this was to assure the quality of the analysis of causes by using foreign experiences to undermine or support the elements in our analysis of causes<sup>2</sup>.

### **3. Findings and assessments**

#### **3.1 Effectiveness**

As expected, the audit revealed that the programme's degree of achievement of the quantitative goals was low. An optimistic calculation based on the Norwegian e-commerce programme's own understanding of the goals suggested that only 0.3% of the value of procurement was purchased electronically via the e-commerce platform in 2003. The target was 20%, as already mentioned. Further, only approx. 0.06% of all transactions were carried out via the e-commerce platform in 2003 – the target was 50%.

As far as the qualitative goals that were set for the individual public sector entities are concerned, interviews and data from the survey suggested these had not been met either. None of the buying organisations linked to the marketplace had started work to follow up and measure the gains. Thus, for this audit question there was no other documentation of the effectiveness than the public sector entities' own assessments.

#### **3.2 Reasons for the poor performance**

The benchmarking study showed that the Norwegian public sector marketplace is one of the most used public sector electronic marketplaces in terms of sales figures. Only two out of the nine public sector marketplaces included in the analysis had higher turnover figures. The practice charted for other public sector marketplaces also supported the hypothesis that several of the identified criteria for success were important.

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<sup>2</sup> The benchmarking was intended to provide better insight into the criteria for success that can be used to implement public sector e-procurement programmes successfully.

However, the analysis of causes revealed that the criteria for success were generally missing from the Norwegian e-commerce programme. This is discussed in more detail under the individual headings below.

### **Financial and organisational constraints – anchoring**

More than 500 public sector entities are potential users of the marketplace. The programme has four employees who are responsible for marketing electronic commerce aimed at these public sector entities. In addition, the employees are responsible for building competencies among the buyers and for work to adapt to the EU-procurement regulations. The results of the benchmarking showed that the Norwegian programme had had limited financial resources and human resources compared with most other government programmes. The programme's resource situation restricted their ability to work actively on recruiting new buyers and suppliers and to follow up buyers and suppliers that already used the system. The Office of the Auditor General finds that the resources do not correspond to the tasks that have been set.

An identified criterion for the success of investments in e-business is firm anchoring of the project at a level where the participants in the steering committee have the authority to make decisions. The study showed that this was not the case for the Norwegian programme. The steering committee for the programme mainly consisted of people without any decision-making authority in their ministry/entity, and the steering committee had a limited mandate. Anchoring is also about the will to use the solution in one's own organisation. The audit revealed that e-procurement was regarded as not relevant for the ministries, which was interpreted as a negative signal among potential users of the system.

### **Targets for gains and benefit realisation**

A fundamental insight from literature on project management is that all projects ought to have verifiable performance targets that are related to realising the main objective for the activity. This has also been incorporated into government policy documents. The Norwegian programme had targets linked to transactions. The targets were thus not appropriate for providing an indication of the degree of achievement of the main objective, which was to enhance the efficiency of public sector procurement.

### **Methods and strategy for enhancing the efficiency of procurement**

The background for the establishment of the e-commerce programme in 1999 was the widespread focus on use of electronic systems in the government administration, where electronic commerce seemed like an interesting area with potential for major savings in the public sector. Simplifying and automating the procurement process from ordering to payment would help reduce costs linked to the actual procurement process itself and allow better purchasing conditions, especially though greater use of signed framework agreements.

Like similar programmes in Denmark, Scotland and New Zealand, the e-commerce programme in Norway used electronic commerce via a marketplace as a main instrument (spearhead) in the work to improve the efficiency of public sector procurement. Some countries have established procurement programmes where electronic purchasing is just one of several means of cutting costs in government procurement.

The e-commerce programme worked on recruiting public sector entities to the marketplace in general, without giving priority to any particular sectors or types of entity. Importance was not attached to what effect can be achieved by getting the individual public sector entities to subscribe, i.e. whether the entity has a sufficiently large potential and whether it is ready to start using an electronic marketplace. Nor was importance attached to whether the buying organisations have agreements with the same supplier in order to get faster subscription for lower costs for the supplier.

### **Focus on change and reorganisation to achieve gains**

A large part of the potential for savings connected to the introduction of electronic commerce solutions is linked to enhancing the efficiency of processes, for example, changes in work processes. Processes of change often meet considerable resistance in organisations, and several factors are decisive in ensuring that public sector entities succeed in implementing electronic procurement systems. Firstly, the entity must have established a strategy for how procurement shall be done when e-commerce is included as an element. Organisation and change management is about anchoring changes in the entity's top management and organisational ability to carry out processes of change. It is also a condition that the procurement strategy and investment in e-commerce are anchored in the entity's management. In addition to a high management focus, it is also important that sufficient time and money are allocated for the execution of the project. Relevant expertise in how the ordering process can

best be designed and changed is needed in order to be able to realise the gains afforded by improving the efficiency of processes.

In the programme charter for the e-commerce programme, importance was also attached to organisational development as a necessity for the programme to succeed. However, the audit revealed that it can be queried whether this has been followed up in practice. The programme has not developed any guidelines for how these kinds of processes can best be handled and provided very little assistance to the buying organisations regarding these kinds of issues. The audit also showed that the focus on change and improving processes was limited for most public sector entities that introduced the electronic purchasing solution.

### **Co-ordination and use of framework agreements**

Use of electronic marketplaces is based on previously signed framework agreements, where the individual order represents a suborder within the framework agreement. In accordance with the procurement regulations for the public sector in Norway, public sector entities are obliged to announce a competition for purchases over a certain value (the threshold value). This means that an electronic marketplace for the public sector must be based on existing framework agreements, which are then added to the catalogue structure of the marketplace.

The e-commerce programme's strategy for achieving sales (in terms of transactions and/or value) through the public sector marketplace has been to recruit buyers, i.e. public sector entities, which in turn have recruited their suppliers. The Public Procurement Act limits the numbers of suppliers that can be linked to the marketplace to those that have already entered into an agreement with the buyers. If several buyers have contracts with the same supplier regarding the same items, it is sufficient for the supplier to enter a single catalogue of items, but it must be linked to a separate price list for each individual buyer.

In general, co-ordination or aggregation of purchases by several public sector entities will contribute to increased contract volume and thus better purchasing conditions, as well as lower costs connected to entering into contracts. It will also help reduce the number of suppliers that need to be linked to the marketplace and thus lead to speedier attainment of the targets for volume.

The Norwegian e-procurement programme did not provide assistance for co-ordinating or aggregating procurement volumes, but left it to the buyers to decide which framework agreements they wanted to use for trade via the public sector marketplace.

### **Business model that encourages participation**

The business model determines the commercial conditions on which the actors participate in the electronic marketplace. A fundamental condition for the success of electronic marketplaces is that it is to the advantage of both the buyers and the sellers to use the marketplace and thus contribute to a high volume of transactions. In addition, the use of incentive schemes<sup>3</sup> that stimulate all the involved parties – buyers, sellers and the operator of the marketplace – will be important to increase the volume of transactions on the marketplace.

The marketplace has four main actors: the Programme for Electronic Commerce in the Public Sector, the operator of the programme – IBX, the purchasing organisations and the selling organisations. The business model is based on the idea that both buyers and sellers pay for the services that the marketplace encompasses. This contrasts with the system in a number of other countries, where it is only the purchasers that pay for the services.

The audit revealed that the commercial conditions (the price model) for use of the marketplace are felt to be disadvantageous by many potential buyers and suppliers. Many of the suppliers that have been invited to participate do not see the value in using the service and would only choose to be linked up if the customer required it. The document analysis demonstrated that the programme has had very little dialogue aimed at the supplier side to create understanding of the potentials afforded by the marketplace.

Nor have any incentive schemes been established to create greater trade through the public sector marketplace in Norway, as is the case in several other countries' public sector marketplaces. The benchmarking study showed that several other marketplaces have focused particular attention on recruiting suppliers. Some of the marketplaces offer suppliers free use of the service, others offer use at a reduced rate. The public-sector marketplace in Denmark subsidises the service for both buyers and suppliers for the first four years of operation. The

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<sup>3</sup> Incentive schemes are schemes whose aim is to promote a particular type of action by means of some kind of motivation. For example, services can be provided free of charge for a period to achieve increased use of the services.

Office of the Auditor General wonders whether the e-commerce programme ought to consider similar solutions to those used in the Danish system or assess whether other incentive schemes could help improve the effectiveness of the programme.