

Session 6 - E-commerce

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Summary of session

Five papers were presented at this session. Four of them treated different aspects of e-commerce and one looked into the issue of classification harmonisation.

Weight and coverage of e-commerce

First question that rises is how e-commerce should be defined. OECD has since April 2000 endorsed definition of e-commerce stipulating that it is where the order is placed but not the payment or the channel of delivery that determines whether the transaction is e-commerce or not¹. If it was included in the definition that the payment should be made electronically, it would cancel out twenty five per cent of the transactions in the case of Canada.

Even if the growth of e-commerce has been considerable its share in consumption or expenditures is rather low as is shown in the papers. The expenditure weight is spread over many products and fields of the CPI and lead to many difficult measurement problems that were discussed at the meeting. It is difficult to anticipate how e-commerce will grow in the future. Information from Finkel's and Lowe's papers shows that it is most common for individuals in higher income groups to buy on the net and there does not seem to be any special inducement for the lower income groups to trade more products or higher priced goods over the internet in the future. The issue about the safety of e-commerce on the web was mentioned in Okamoto's paper. That issue includes both the payment and delivery of goods or services. When it is not absolutely safe to trade on the web regarding both payment and delivery it can be seen as a strong trade barrier.

One problem is the fact that it is often difficult to know where the web firm is based and where the good is shipped from. This is connected with the scope of the CPI and the question if spending is domestic or from abroad.

To register the amount of goods and services sold various sources are needed. Information from household budget surveys (HBS) seems to be a very strong candidate as is outlined in Fenwick's and Finkel's papers, even it is often not enough precise at a detailed level. Consumers in HBS are asked specific questions and it is always known who the buyer is. Information from sellers can also be useful but the problem is to know who is buying. The major part of e-commerce is conducted by businesses so there are considerable difficulties in separating between business and private expenditure². The third source is surveys but experimental survey that has been conducted in the UK about the internet use does not show promising results.

¹ "An electronic transaction is the sale or purchase of goods or services, whether between businesses, households, individuals, governments, and other public or private organisations, conducted over computer mediated networks. The goods and services are ordered over those networks, but the payments and the ultimate delivery of the goods or service may be conducted on or off-line."

OECD (2003), *Measuring the information economy 2002*, (89).

² European Commission, Eurostat (July 2002), *E-Commerce in Europe*, (7).

E-commerce sampling

Some participants stressed the fact that e-commerce price collection would only be a problem in case web prices moved differently from prices in general. If the prices changed in a similar way it would ease the pressure of collecting prices from the web sites. Okamoto's paper showed that PCs sold by the internet had comparable prices with models sold at traditional retail outlets, after appropriate quality adjustments. But the extension of this observation to other products or countries is an issue. Fenwick showed that two different strategies could be applied according to price movements of products:

- where price movements of e-commerce are different (compared to traditional comparable products), selection of these products in the sample is recommended. Most of participants thought that a sampling frame of outlets was generally preferable as e-commerce looks more like a new distribution format (like mail order shopping) than a new kind of products;
- where price movements of e-commerce are similar, sampling of these products is less necessary. But the observation of internet prices appears in this situation to be a cost-effective tool to track and monitor prices of products sold in other outlets.

Problems of e-commerce price collection

The e-commerce trade is still very volatile which can influence the stability of price collection. There is also big variance in the goods and services sold through the web as it covers very different goods or services such as books, CDs, flight tickets or home banking.

Another problem is the measurement of transport cost. It is very often difficult to assign transport cost to an individual item or good as it is in some cases connected to the amount of goods bought. If the transport cost can be safely related to the item it would be a preferable method to price the good with the transport cost included. But very often that is not possible and in that case the transport cost should be included in a separate index. As with other price measurement the choice of method should not affect the result as long as the proper weight is assigned for the transport services.

In the case of goods like air fares and home banking services arguments were expressed that a method of using profiles should be preferred. The vast information about different prices available on the web, make work with profiles easier.

The issue of classification

Woolford's paper was partly about the ongoing work of harmonising bar code system classifications. A unified classification system connected to databases of goods bar codes could be of great use in statistics e.g. for data sampling or product identification. It was argued that this would probably be of most use in PPI calculations. The view was expressed that if the aggregation was at a higher level, the lower level classification did not matter so much as long as the aggregation could be conducted safely.

The meeting was of the opinion that this work should be steered by UN Statistical Division that has played a leading role in the harmonisation of other classification systems.

Recommendations for statistical agencies

Weight and coverage of e-commerce

1. The OECD definition of e-commerce should generally be used and the form of payment for goods and services should not influence the decision of which items are included.
2. A consistent treatment should be sought for e-commerce from abroad sites according to the scope of the CPI and to practical considerations.
3. The main source for weights should be household budget surveys. Information from providers of e-commerce services and surveys about e-commerce can also be useful.

E-commerce sampling

4. In principle all web outlets should be covered in the sample frame for the price collection if the expenditure shares are big enough for each item to be included in the index. In practical selection of e-commerce significant products is recommended when their price movements differ from those of traditional comparable products.
5. Even if the weight shares for respective e-commerce products are low, the price information available on the web could be used by convenience in the regular CPI price surveys if that information is detailed enough and price movements of e-commerce and ordinary outlet products are similar.

Problems of e-commerce price collection

6. All cost connected with e-commerce buying should be included in the prices collected. The transport cost should preferably be included in the price of the good or service if possible. If that is not a possibility, a separate index should be calculated covering the change in transport cost and the proper weight should be used.
7. In the case of e-commerce of some goods and services such as airline tickets and home banking a method using profiles is to be preferred.

The issue of classification

8. The meeting was very interested in the ongoing work in the business world to harmonise item classification for scanned goods.
9. There was a strong support at the meeting for the continuation of this work. It was argued that it should be conducted preferably under the supervision of the UN Statistical Division.