

30th Voorburg Group Meeting

21-25 September 2015

Sydney, Australia

Sector Paper: *Call Centres*

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1. Introduction

Measurement of output of the Call Centres sector presents few challenges; the sector is well defined and reasonably homogenous. Production of indices measuring price development is less straightforward and there are still few countries where progress has been made.

This paper summarises the activities of Australia, France, Norway, Sweden and the USA as presented and discussed at the 29th Meeting of the Voorburg Group (VG) along with the results of the VG "Survey of country progress".

The paper will address classification issues and challenges to measurement of turnover and price change. A number of recommendations will be made in respect of these issues and classifications, which should provide practical guidance to compilers in developing or improving SPPIs for the sector. We recognise however, that decisions which compilers will need to make as to the most suitable approaches to follow will be heavily influenced by availability of data, resources and prevailing market conditions.

The remainder of the paper is organised as follows:

- Section 2 covers classification of the sector.
- Section 3 discusses issues relating to the measurement of turnover.
- Section 4 provides information on how Service Producer Price Index (SPPI) data is compiled for the sector.
- Section 5 gives a brief summary of the conclusions.

2. Classification

Four industry classifications were considered as part of the mini-presentations: the UN International Standard Industrial Classification (ISIC, Revision 4.0), the Statistical Classification of Economic Activities in the European Community, Rev. 2 (NACE Rev. 2), the North American Industrial Classification System (NAICS US 2012), and the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006.

There are not significant differences in the classification of the sector evident across countries as the Call Centre sector covers a reasonably narrow spectrum of services provided almost exclusively to business customers.

At the top level the sector belongs to division 82 Office administrative, office support and other business support activities within section N Administrative and support service activities. The sector is broken down into two industries for NAICS United States covering 561421, Telephone Answering Services and 561422, Telemarketing Bureaus and Other Contact Centres. The former are defined as answering telephone calls and relaying messages to clients; these services are of the type typically used by medical professionals or others that are on call for emergencies outside of normal business hours. Telemarketing bureaus and other contact centres provide a much wider range of services to their clients, which can include fax, e-mail, and telephone contact to receive and process orders, to promote the clients services or offerings, to solicit contributions for clients, or to provide general information and customer assistance regarding a clients services. These services can require inbound inquiries, outbound solicitations, or both. These services are generally provided on a contract or fee basis to clients but can also be provided by separate units to support other locations of multi-establishment companies.

For NACE and ANZIC, there is no sub-categorisation of the industry, with both having just one class (though Statistics Sweden does have the possibility to divide the class further into sub-classes not required by the EU statistical system). For ANZIC the classification excludes This classification excludes 'gathering, recording, tabulating and presenting marketing and public opinion data that may include telephone canvassing services, which are included in Market Research and Statistical Services'.

2.1 Industry Classification

Table 1: Classification of sector in ISIC (rev 4)

Section N	Administrative and support service activities
82	Office administrative support activities
82.1	<i>Office administrative support activities</i>
82.2	<i>Activities of call centres</i>
82.20	Activities of call centres

The ISIC classification gives the following description for the class:

- activities of inbound call centres, answering calls from clients by using human operators, automatic call distribution, computer telephone integration, interactive voice response systems or similar methods to receive orders, provide product information, deal with customer requests for assistance or address customer complaints;
- activities of outbound call centres using similar methods to sell or market goods or services to potential customers, undertake market research or public opinion polling and similar activities for clients.

2.2 Product classification

The product classifications presented here are the Central Product Classification v.2 (CPC v.2), Classification of Products by Activity (CPA 2008) and the North American Product Classification System (NAPCS v.1). Detailed descriptions of these product classifications are included under Appendix 3.

For product classification the distinction is made between inbound and outbound call centres and the different services they provide. The NAPCS is more detailed than the other two, with regional differences evident. For example, the Canadian variant of NAPCS has 5 products, USA has 6 while Mexico has 9.

It was highlighted that in Norway division 82 has a dominant group 82.9 Business support service activities not elsewhere classified, which may highlight a classification issue.

3. Turnover Statistics

3.1 Data availability

There is generally good availability of turnover data for the sector. Of the twenty-two countries that responded to the "Survey of country progress", nineteen compile industry-level turnover. The Call Centre sector is relatively small in its contribution to total national output. The industry sees a reasonably high degree of fragmentation, with a large number of small firms in the US, Australia, Norway and Sweden (no information the breakdown of the sector was provided by France). The flip side however is that a small number of large firms typically dominate the market.

3.2 Collection of data

A variety of sources are used to compile turnover data for the sector. These include sample surveys, censuses and administrative data – in form of taxation records. Combinations of survey and administrative data are commonly used.

Structural Business Statistics (SBS) type surveys are used to compile annual turnover data. The surveys also collect additional information on additional characteristics including, employment, payroll, investment and other establishment characteristics.

Sub-annual turnover data is compiled mostly on the basis of surveys, which may also include collection of data on a more limited number set of characteristics, such as employment and costs of purchased goods

and services. However, a number of countries are looking at the potential for using administrative records for sub-annual data reporting to minimise the burden of statistical surveys.

Sub-annual results are generally published as indices. They provide a short-term indicator of economic performance in the sector and are used in the compilation of monthly/quarterly national accounts.

3.3 Data issues

There is a wide range of turnover data available in all countries that are collected quarterly and annually (and less usually at a monthly frequency). The presenters noted that not all required variables are collected in the short-term surveys with the needs of national accounts being met by the use of ‘keys’ derived from the more detailed annual surveys. The paper from the US noted that quarterly data “..generally benchmarked to annual data to ensure consistent results over time with the more comprehensive annual data”; this can be seen to be good practice and aid alignment with national accounts.

3.4 Recommended approaches

In turnover statistics, the measurement of the remuneration for rendering call centre services is pretty straight forward. The only major differentiation is around inbound and outbound traffic. The revenue is normally based on a contract rate, a rate per call or successful call etc. In all cases, the collection of revenue appears to be uncomplicated and achieved without significant problems by each of the NSIs presenting.

Table 2 below provides an overview of the options for developing or re-developing turnover statistics for the sector. They are ranked according to best, good and minimum approaches.

Table 2: Options for developing turnover statistics for call centre services

Category	Data Source	Level of Detail Collected	Frequency	Cost	Comment
Best	Survey/Census	Industry turnover and product turnover detail	Annual and/or sub-annual collection	- Most expensive - Largest response burden	Allows greatest flexibility to identify specific revenue streams. Timely data
Good	Survey/Census	Industry detail only	Annual and/or sub-annual collection	- Expensive - High response burden	Industry level detail may not be sufficient due to secondary activity issues Less timely data for Census
Minimum	Administrative data	Industry detail only	Annual	- Least expensive - Little or no respondent burden	Least timely Units may be misclassified to incorrect industry Requires interventions to match to register May be problems around access

4. Service Producer Price Indices (SPPI)

4.1 Data availability

There is likely to be reasonably good availability of prices data for the Call Centre sectors, though there is unlikely to be a standard pricing mechanism that can be used for the whole sector. That said few countries that responded to the “Survey of country progress” currently produce an price index. Of the 22 responding countries only 3 calculated industry level prices.

4.2 Source of SPPI data

Price data for the sector is collected via dedicated SPPI surveys. Given that Call Centre services are confined to the commercial sector there is no equivalent in the consumer sector meaning the Consumer Price Index cannot be used as a proxy.

4.3 Target coverage

Price collection in this sector is targeted at all of the services the sector provides, so include inbound and outbound traffic and on- and off-shore services. It is important to note the differences in the quality and type of ‘product’ at this point, though further discussion around these aspects is presented below.

The services may be provided as a single or secondary activity of an establishment, and in the latter case the primary activity may take the call centre activity into a different classification, such as telecoms provision. Establishments classified to the sector may themselves also engage in secondary activities. However, the extent of this is likely to be small and so industry coverage is unlikely to include significant amounts of out-of-scope activity.

4.4 Pricing methods used and main issues arising

Unit price measurement is most common with prices based on a minute, hour or productive time. Unit prices per orders are also used for a repeated transaction and in some cases the direct use of hourly rates. However, as noted previously, there is unlikely to be a single, standard pricing mechanism that can be used.

Prices depend on different variables such as length of call, worked time, productive time, whether it is an inbound or outbound call, type of query, time of day the call is made and the qualification level of the employee. It is important to distinguish between inbound and outbound, in-house and outsourced and onshore and offshore services.

Outsourcing is becoming a big issue for this sector and creating challenges. There are two types of outsourcing in this sector – on-shoring and off-shoring. There is now an emerging trend to on-shore these services where contractors are hired, which is a shift from the standard employer/employee relationship. This raises additional issues of how to identify more on-shoring.

There are also geographical factors to consider as the location of a product could be a factor that will affect price. The OECD guide says location is a product determining factor as services provided by an enterprise in two different locations should be treated as different services. Are onshore and offshore services the same? If off-shoring and on-shoring will impact on price this needs to be distinguished in the product description.

It has been identified that outsourcing has pros and cons. The main pro is that leads to a cost reduction for the call centre but the flip side of this has generally been seen as a reduction in the quality of the service. This has become a problem in Australia where there was a backlash when call centres off-shored their services as this caused a decrease in the quality of the service provided. There is a high demand for high quality services and clients are willing to pay extra for greater customer satisfaction, which has caused call centres to relocate onshore.

It was questioned whether there would be any double counting issues with outsourcing. If one call centre outsources the services to another call centre onshore who would report the turnover figures, what would be included and where should the form be sent? Are off-shore services considered imports? In all cases the quality of the service needs to be established in discussions with the data supplier. The quality parameters can be specified such that the service can be priced to constant quality over time. Parameters for consideration will include the type of call, for example inbound/outbound, the level of expertise of the call handler, location (on- or off-shore) and the nature of the establishment's pricing approach etc.

Quality adjustments for this sector are a challenge. It is unclear how to approach quality adjustments for a service if a centre relocates from off-shore to on-shore. The services provided will still be the same but the quality of the service will have changed and the cost of providing them will change. This can be hard to quantify as the change in quality of the service will need to be included. France assumes the quality of the offshore call centre services is only 80% of onshore services, though this metric was challenged by some of the delegates to the Group's meeting. In summary, a standardised 'product' (service) should be identified that is representative of the type of service provided by the reporting unit. This service may need to be updated or replaced periodically to ensure on-going representativeness. For routine, repeatable services, priced according to a flat fee, direct use of prices of repeat services can be used. This method has the advantage of representing the ideal use of real transaction prices. Also, it is often relatively easy to employ but is important to ensure that there is no significant change in the nature of the responding units (or industry's) business model such that the standard becomes out of date with reality.

4.5 Weights

The type of weights required will vary according to the type of approach taken to compile the PPI. 'Product' level price indices are recommended over industry level indices but as there are currently so few countries producing a price index we cannot assess what level of impact different approaches is likely to have.

4.6 Recommended approaches

Table 3 below provides an overview of the options for developing or re-developing SPPIs for the sector.

Table 3: Options for Developing SPPIs for Call Centre services

Service Type	Pricing Mechanism	Pricing Method	Data type in survey	Quality and accuracy
Routine, repeatable	Price per minute/hour of phone time for different levels of employee expertise	Contract price	Real transaction prices	High if transactions remain representative and at constant quality, possibly need to control for time of day
Unique and non-recurring	Total price charged for a set contract	Contract price	Real transaction price	High at the beginning but measures of change difficult to capture without an attempt at quality adjustment; this is difficult to achieve. So quality will diminish.

5. Summary of main conclusions

Measurements of output development of the Call Centres sector are well developed but not so prices. Compilers of these statistics must consider a number of characteristics of the sector which can complicate price measurement.

International classifications are well harmonized; Call centres as a sector are well defined and NACE and ANZSIC only include one four digit class. The content between these classifications and NAICS are similar with the only difference being that telephone answering and telemarketing services are split out in NAICS. For product classification the distinction is made between inbound and outbound call centres and the different services they provide. It was highlighted that in Norway division 82 has a dominant group 82.9 Business support service activities not elsewhere classified which may highlight a classification issue.

In the majority of countries the market is dominated by a few large firms. These units are normally homogenous and in Norway there was no significant secondary production. This is different to the US where a lot of secondary activities in establishments were identified. There are a variety of experiences between the different countries as in Sweden and USA the sector is increasing while in Norway it is declining. Also the sector is relatively stable in France while volatile in others like Australia.

There is a wide range of turnover data available in all countries that are collected quarterly and annually however there are only a few countries producing SPPIs.

There were issues raised about the modes of communication involved with call centre services. In the US this was limited only to telephone and they highlighted the need to clarify and investigate other modes of communication.

There are overlaps between services in this sector and other sectors such as telecoms, which highlights the interdependence of services within the service sector. It needs to be clarified in the product description what is included and excluded as some products may overlap.

Outsourcing is becoming a big issue for this sector and creating challenges as discussed in section 4.4. Quality adjustments for this sector are also a challenge and this will impact on the ability to price to constant quality.

Appendix 1 – Overview of international progress ISIC 3312

Survey categories	# of countries
a. PPI details >= CPC	0
b. PPI details >= CPC soon	0
c. Turnover details >= CPC	2
d. Turnover details >= CPC soon	0
e. Industry prices calculated	3
f. Industry turnover collected	19
1. Detailed turnover and prices well aligned	0
2. Detailed turnover and prices well aligned soon	0
3. Industry level turnover and prices aligned	2
4. Industry level turnover and prices aligned soon	2
5. Other - no industry coverage for prices and/or turnover, etc.	22

Appendix 2 – Overview of industry classification

ISIC Rev 4

Section N Administrative and support service activities

82 Office administrative, office support and other business support activities

82.1 Office administrative support activities

82.2 Activities of call centres

88.20 Activities of call centres

NACE Rev.2

Section N Administrative and support service activities

82 Office administrative, office support and other business support activities

82.1 Office administrative support activities

82.2 Activities of call centres

88.20 Activities of call centres

NAICS United States 2012

56 Administrative and Support and Waste Management and Remediation Services

561 Administrative and Support Services

5614 Business Support Services

56142 Telephone Call Centers

561421 Telephone Answering Services

561422 Telemarketing Bureaus and Other Contact Centers

ANZIC 2006

Division N ADMINISTRATIVE AND SUPPORT SERVICES

Subdivision 72 ADMINISTRATIVE SERVICES

Group 729 OTHER ADMINISTRATIVE SERVICES

Class 7294 Call Centre Operation

Appendix 3 – Overview of product classification

CPC Version 2

8593 Telephone-based support services

85931 Telephone call centre services

This subclass includes:

- taking orders for clients by telephone
- soliciting contribution or providing information for clients by telephone
- telemarketing

85939 Other telephone-based support services

This subclass includes:

- telephone answering services
- telephone wake-up services

CPA 2008

N: ADMINISTRATIVE AND SUPPORT SERVICES

82: Office administrative, office support and other business support services

82.2: Call centre services

82.20: Call centre services

82.20.1: Call centre services

Detail

Code: 82.20.10

Description: Call centre services

This item includes: This subcategory includes:

- taking orders for clients by telephone
- soliciting contribution or providing information for clients by telephone
- telemarketing

NAPCS US

5614 5 Call center services

Making or receiving telephone calls on behalf of others, for such purposes as marketing clients' goods or services, providing customer assistance, and providing answering services.

5614 5.1 Telemarketing services

Making or receiving telephone calls to market clients' goods or services.

5614 5.1.1 Outbound telemarketing services

Making telephone calls to market clients' goods or services.

Includes:

- making telephone calls for the purpose of fundraising.

5614 5.1.2 Inbound telemarketing services

Receiving telephone calls to market clients' goods or services.

Includes:

- services such as taking orders, making travel reservations, and handling directory inquiries.

5614 5.2 Telephone-based customer assistance services

Making or receiving telephone calls to assist customers of clients.

Includes:

- answering questions about product setup and installation, and troubleshooting problems with a client's goods and services.

5614 5.3 Telephone-based data collection and polling services

Providing data collection and polling services using the telephone.

Includes:

- conducting telephone interviews, surveys, and market research, on behalf of clients.

Excludes:

- analyzing data collected.

5614 5.9 Other call center services

Making or receiving telephone calls on behalf of others, for purposes other than telemarketing, customer service or market research and opinion polling.

5614 5.9.1 Telephone answering and messaging services

Providing telephone answering and messaging services, where a live person or a computer answers, screens, and redirects inbound telephone calls. Includes services that provide communication between two parties.

Excludes:

- instant messaging services.

5614 5.9.2 Telephone dialing (or call placing) services

Providing telephone dialing (or call placing) services from a booth to a local, national, international or cellular phone number. The service is charged based on the provider's rate, according to the call's length.

5614 5.9.3 Telephone booth services

Providing telephone booth services to connect, place or receive calls at the client's request. The provider does not operate the network and its revenue comes from the rates established for each call.

5614 5.9.4 Call placing services (without telephone line operation)

Providing call connection services in booths; the provider contracts the telephone lines from a carrier and it only charges by means of rates per call, according to the call length.

5614 5.9.9 Other telephone booth services

Providing other telephone booth services not elsewhere classified. This service is provided as a complement to the main activity but useful for their clients.

References

Classifications:

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<http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=5&Lg=1>

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http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=CPA_2008&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=HIERARCHIC

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<http://unstats.un.org/unsd/cr/registry/cpc-21.asp>

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<http://ec.europa.eu/eurostat/documents/3859598/5902521/KS-RA-07-015-EN.PDF>

North American Industry Classification (NAICS) 2012

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North American Product Classification (NAPCS)

<http://www.census.gov/eos/www/napcs/index.html>

UN International Standard Industrial Classification Rev.4

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