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LIKELY CHANGES IN SERVICES IMPACT ON DATA COLLECTION

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LIKELY CHANGES IN SERVICES ; IMPACT ON DATA COLLECTION

The experience gained in the last twenty years, the period of major increase of importance of services in the economies, shows that some development problems would perhaps have been avoided, especially at the end of the eighties, if a correct forecast of changes in services and transactions would have been available. Indeed, forecasting well in advance what is going to take importance, or, which is less presomptuous, listing well in advance some possible sectors which may become important, permits to study the possible economical and social consequences of the development ; subsequently, it permits to prepare the organisation of the possible new markets, both for facilitating the future transactions and for providing some recourses to the transactors and, eventually, to the society as a whole. If theoretical modelisations of the effects of possible changes are used when forecast are made, it is then necessary that those who observe the markets and their developments be prepared to adapt their tools, both to detect a new activity or a new product which becomes important or a new type of transaction which becomes usual. This is valid for lawyers, professionnals, public lawmakers, ... and statisticians.

As said, the changes in the sector of services are important for the economy as a whole. There is therefore a need for them to be correctly appreciated. In turn, for being adequately observed and measured from the very moment they should be observed and measured, the statisticians have to prepare the required modifications of the tools they use in order to have them readily available at the required moment.

Until the end of this century or the beginning of the next millenium, it is possible to make some forecasts on what services may become, or, at least, to present some high probability developments in the service industry. This operation has no prophetic background. It is a simple examination of the present service markets and of the major trends observed over the last five years. Of course, written by a French statistician, this paper may present a situation which is typically French. This may be the case in some instances, but, in general terms, the situation described should be valid in many countries in the world, especially the most developed ones.

This paper shows, in particular, the increasing integration of goods and services. It concludes that services may loose their specificity, except as a precursor of the general changes in the organisation of the economies. This might be a controversial conclusion, since creativity and inventivity remains the characteristic of services. However such a topic seems interesting to discuss, because it has consequences in the organisation of the making and of the makers of statistics;

Some exchanges of ideas leading to the present study have taken place under the sponsorship of the Commission on service accounts, a sponsorship which is unfortunately now discontinued. A small group of persons has been constituted, which will continue to discuss the subject in the future, if a new sponsor is found. The group is chaired by Edouard SALUSTRO, Vice-Chairman of the Commission, and has as members Jacques de BANDT (professor of industrial economics at the University of Nice-Sophia Antipolis), Bernard FLEURY (Commissariat général du

Plan), Laurent GILLE (SIRIUS- IDATE (Institut de l'Audiovisuel et des Télécommunications en Europe)), Jean-Marie NIVLET (INSEE), Hugues PICARD (INSEE), Patrice ROUSSEL (INSEE) and Catherine SAUVIAT (IRES (Institut de recherche économique et sociale)).

Parts of the paper are inspired by a report by Catherine SAUVIAT to the Commission on service accounts on "The international nets of services : the case of consulting and of auditing", by a report by Laurent GILLE to the Commissariat général du Plan on "Electronic intermediation", and by a note prepared by Laurent GILLE on the "transactional approach". However, the author claims full responsibility on all the paper, especially because he has modified and summarised these documents

It should also be noted that, even if no clear reference is made hereafter, the paper aims at covering principally business services, although it cannot be avoided to treat, in some places, also the services to households.

The main characteristic of the future provision of services is the wider and wider use of telecommunications. Such use will (and has already) induced several new services and new organisations of enterprises or of links between enterprises. However, some of these modifications are not typical of use of telecommunication, they are in the trend of modifications as to service provisions and are only amplified by the use of telecommunication. Therefore, prior to devote some time on the latter use, it seems necessary to characterise some possible trends which would exist without use of telecommunications. Then the changes enhanced and induced by telecommunications will be examined. At last some consequences on statistics will be pointed out.

Some trends not induced by telecommunications

An increased sophistication in the ways services are provided

The development of services, in many cases, is now such that the changes follow a "normal" pattern, at the aggregated level of all the providers of a given service in a given country. One of the three possibilities may apply :

- the market is saturated, i.e. the service is now used by all the enterprises which normally would use it ;

- the market is increasing slowly because the saturation is almost reached ;

- there is an inflexion point in the development of the service because the enterprises which do not use it so far are those which are not convinced of its usefulness or of the gains which would come from its externalisation.

The first two types of situation imply an important competition among the various providers in order to gain market shares. This competition is generally situated at the price and quality level. Either an enterprise provides the same service at a lower price, which implies a decrease of its costs, or it provides a better service for the same price. In the long run, these comportments are translated into more and more sophistication in the ways the service is provided.

As to the third possibility, to convince a reticent enterprise to use the service provided by an other enterprise, there is a need to show that there is a cost advantage and that the gain, in this case, is also the maintenance up-to-date of the way or the methodology for rendering the service. In turn, this implies an increased sophistication in the way the service is provided.

The increase in sophistication implies the improvement of existing methods and methodologies, the research of new and more efficient methods and methodologies (innovation, intangible investments in R &D), the research of better organisation of labour (innovation), a better training of the personnel (human capital investment), the purchase of new softwares (intangible investments) and the acquisition of high performance machinery such as computers but also special machines and tools in the case of logistic services (tangible investments).

As to certain logistic services, one should also note the emergence of specialists in building, office or factory cleaning, security, ... who will be associated in the construction of new buildings or factories, in order that these buildings become "intelligent" not only as to the circulation of information but also as to the easiness for cleaning and being looked after (decrease of costs).

Packaged demand

As to logistic services, one of the consequences of the last economic crisis is the fact that medium and big size enterprises do not want any longer to deal service by service. They require that a global contract including all logistic services be passed with a given company, which, in turn, will be in charge of the performance of all the services. It can be imagined that such comportments by users may be extended to other types of services.

This globalisation of demand will have implication in the organisation of enterprises :

- a "polyvalent" enterprise is created which performs the various activities including the discussion of global contracts with the users ;

- a group is constituted of enterprises providing the various logistic services ; one unit of the group is the intermediate between the demander and the service provider (this may be a specialised unit or the operation may be performed by any enterprise of the group) ;

- an enterprise acts as an intermediary with a set of other enterprises, with which it has no other links ; the intermediary is responsible for finding the various enterprises which will work for the demander, it passes a global contract with the demander and individual contracts with each provider of service, and is remunerated, in theory, by a percentage of the value of each individual contract ; the links between the intermediary and the providers of services may be more or less strong, this organisation is one of the simplest net of enterprises organisation.

Packaged offer of goods and services

One phenomenon which can be seen as for now and which will certainly develop in the future is the packaged offer of goods and services by the same enterprise. At the onset of this phenomenon are the goods manufacturing enterprises which have found it to be an important factor for increasing their revenues to develop units (or to purchase units) providing services using the goods they manufacture. This is the case, in particular, of computer manufacturing enterprises which have developed software and management consulting units. This is also the case of telecommunication enterprises.

But, in a more general manner, the sale or the provision of a good, in many instances, comes with the provision of a certain number of linked services (softwares, transport, insurance, guarantee as to maintenance and repair, training of the users, ...) the value of which is sometimes higher than that of the goods. In reality, the user is interested in the total invoice and its comportment can only be analysed within the framework of the total goods and services purchased. So one is interested in the domain of computers, of telecommunication, ... regardless of the separation between goods and services.

Internationalisation and globalisation

The service sector, as other sectors, is engaged in an ongoing process of internationalisation and globalisation. These phenomena are well known and will not be discussed again here, only to stress their growing importance, within groups of organised groups of countries, and also all over the world.

Consulting services : normalisation and obligation of results

Normalisation and obligation of results are different items without much links with one another. However, these two concepts seem to characterise the changes which will occur in the future as to consulting services.

Many professions in the consulting service sector feel the necessity of having some kind of **normalisation**, in order to be in a position to assess the quality of the enterprises engaged in the profession (the development of ISO 9000 is rather important and will increase in the future). There are generally two levels of normalisation : normalisation of the outcome of the service to be provided, and normalisation of the operating procedures. For example, in the sector of auditing, the two levels are : the accounting and the operating procedure normalisations. As to the latter level, an international professional organisation provides the rules to be followed and the application of these rules is controlled by the professionals themselves.

As to accounting normalisation, it seems that the power of deciding on the norms will be transfered from the political authorities to the professionals themselves, when it is not yet transfered.

As to **obligation of results**, more and more advices are "sold" with this obligation. It is in particular the case of re-engeneering, for which part or the totality of the remuneration of the consulting agency is linked to the expected results.

Furthermore, to-day and more to-morrow, consulting activities include an important part of computer services, the result of which can be appreciated. However, there are still some difficulties to assess, prior to use them, the quality of big ad-hoc softwares. It seems that methods have not yet been found to assess the quality, say at a level of 95 or 99 % of certainty.

In fact, generally, the consulting services have followed (and are expected to follow in the future) a pattern of development, which starts with only obligation of means when the service is a new one, then methodologies of analysis of the problems and of development of solutions are proposed and improved until one or a small number become used by most of the profession. Their correct application is a measure with respect to the "quality" and the seriousness of the enterprise. This does not prevent some "bold" consulting enterprise to engage in improvements of the existing methodologies or in the research of new ones, but as the client is usually the place where experimentation can be carried out, there is a non negligible risk factor included in these operations.

Links between enterprises

The creativeness in the organisation of links between enterprises in the service sector has shown already to be important ... and it seems that this will continue.

The enterprise group which is characterised by financial and hierarchical links, will certainly remain one of the major types of organisation, within a country or at the international level (where it is re-enforced by the phenomenon of "establishment trade").

Franchising is generally synonimous of trade on goods. However, in the last five years, a franchising of services has appeared, and it seems that this development could take some importance in the future. As for goods, a leading enterprise gives the right to franchised enterprises to use a common name and provides them with some services such as general advertising on the name, training, accounting, ... The counterpart expected from the franchised enterprise may take mainly two forms : (i) the franchised enterprise agrees to use the methods of the franchiser and only these methods, and, eventually, they agree also to use solely machines and softwares provided by the franchiser, and (ii) the franchised enterprise agrees to respect a certain level of quality defined for all franchised enterprises by the franchiser.

Nets of enterprises is the name to qualify any other type of links between enterprises. The corresponding organisations are numerous and difficult to characterise in detail. However, some important classes can be drawn :

- (i) enterprises linked to an intermediary ; the links may be exclusive on two ways, i.e. for a given service, the intermediary works only with one enterprise, and each enterprise does not work on contracts not passed through the intermediary ; the exclusivity may also be one way (for the intermediary or for the enterprise) or no exclusivity at all may be the case ; it should be noted that the intermediary selects the enterprises for the client, which implies some kind of guarantee of quality vis-à-vis this client ; this kind of organisation is generally localised and concerns mostly basic and logistic services, as well as many maintenance and repair services, but it may also concern other services such as training services ;

- (ii) enterprises may also create a net in order to put in common different specialities or to be everywhere at the service of a given client (this distinguishes the net of enterprises from the enterprise-net) ; the most important nets, in this case, are international nets of auditing and consulting (the big six), but other nets exist besides these ; these nets are more or less loose organisations, especially as to the hierarchical situation of the enterprises vis-à-vis one another. There are various forms of nets, but, in general, they can be characterised as being managed in common by representatives (senior partners) of the enterprises included in the net (there is no leader enterprise). As said, the net may be organised by speciality; by location, ... The net may be therefore a juxtaposition of enterprises which know each other and exchange a client when he moves from one place to another. It may also be a juxtaposition of specialised enterprises which are engaged to use the services of a member of the net when a speciality is required. But it may also be more integrated enterprises which share profits and expenditures according to contracts, which apply similar methodologies, have centralised training places and manage a common (important) documentation center.

It should be noted that more and more, at least in France, a service enterprise is compelled to be member of some kind of organisation to find sufficient work.

The use of telecommunication

The use of telecommunication will be examined in three aspects. Firstly, the so-called tele-services will be presented, from the fact that, at the beginning, telecommunication were used to provide some existing services in a more efficient way, to the development of markets of tele-services and the necessity of defining rules for these markets and to the apparition of intermediaries on these markets. The second part will be devoted to the electronic intermediation and its development. The last part will introduce the fact that, with the use of telecommunications, the transactions will become more and more complex and numerous.

The tele-services [1]

A tele-service is any service provided by an entity to another entity juridically different, using the tool of telecommunications".

Many services may become tele-services. As to business services, one can cite the followings (the list is not comprehensive) : secretariate, data entering, printing, accountancy, management, consulting, engineering, technical assistance, software development, installation and maintenance, facilities management, security, management of air conditioning and heating, controls of industrial processings, vocational education and training, medical diagnosis, professional information, ..

In fact, for a service to become a tele-service, obviously it must be externalisable and also there should be no requirement of direct viewing contact between the client and the provider. Of course, these conditions are not sufficient : externalisation takes place only if it brings an advantage to the client (gains in production or distribution costs, or improvement of the service for a given cost) ; furthermore, as the use of telecommunications adds a supplementary cost to the externalised service, it is necessary that the tele-service presents a comparative advantage as to its quality.

It is clear that, working with telecommunications, but also with computers, the enterprises providing tele-services have a high level of investment, tangible (transmission equipment, computers) as well as intangible (computer and telecommunication softwares) ; furthermore, in order to provide services with the required level of quality and to be in a position to make the softwares work efficiently, the personnel in these enterprises must be of higher qualification than in classical enterprises ; at last, there is a need of improvement through R & D, or innovation in order to keep the comparative advantage.

These three characteristics (important investments, high qualification of personnel, important share of R & D) seem to be synonimous of specialisation of the tele-service enterprises. This is often the case, but it depends also on the nature of the service ; furthermore, this may be opposed to a permanent relation with a client. This implies then, perhaps, the creation of groups or nets of specialised enterprises.

So far, the development of tele-services has followed three paths, which, it seems, it will follow in the future : (i) integration of telecommunication possibilities by a "classical" provider of services, (ii) taking in charge by a separate unit of an activity with a high telecommunication component, up to now exercised internally, and (iii) innovation by invention of new services (tele-translation for example).

The presence of tele-services in the telecommunication nets turns the latter into a market place : the economic role of the nets is thus amplified. This market, to work correctly has to be organised :

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(1) Most of what is presented in this paragraoph is drawn from [1]

(i) securisation of exchanges, for guaranteeing both the quality of the performance and the effectiveness of the payments ;

(ii) guarantee of access to most of the potential users (problem concerning the development and dissemination of softwares of telecommunication) ;

(iii) garantee of quality of the telecommunication nets ;

(iv) necessity of making certain tools available (adress books, re-routing, transcodification, archives, ...) ;

(v) establishment of specific and modification of existing laws and rules (dematerialisation of signature, of certain official documents, ...).

All this requirements imply the creation or the re-enforcement of certain functions such as maintenance and repair of telecommunication goods, of telecommunication nets, specialists in ends (entrance and exit) of telecommunication nets, telecommunication software developpers, net engineer, normalisation of exchanges (EDI), R & D in tele-services.

But, more and more, with the expected development of tele-services and the improvement of quality and ease of use of telecommunication softwares, any enterprise, big or small, will have access to a large number of providers of tele-services among which they will have to choose the "right one". If great enterprises may develop their own permanent set of tele-service enterprises, the smaller ones cannot develop this function, which implies then two non exclusive possibilities : the quality control of the enterprises, and the development of intermediaries who provide advises or select service enterprises on behalf of a demander of service. The importance of these two factors have been pointed out as being a possible trend for consulting services, but, with the development of tele-services, their scope of application becomes much wider.

Quality control , as said earlier, has two aspects :

(i) the quality control of the enterprise itself, which may result from a recognition by the state, or by an association of enterprises providing similar services, through exams by the professionals or using norms like ISO 9000 ;

(ii) the quality of the service provided (including both the service itself and the telecommunication service) ; if some services can be appreciated at the very moment when they are provided, some others, as said, can only be appreciated in the medium or long run, which makes it difficult to do this appreciation for operational purposes.

In order to help small and medium enterprises to select the right tele-service for the right need, intermediaries appear in the net, which can work according to the following main patterns, which are not exclusive from one another :

(i) the intermediary is more a consulting enterprise, which tries to define exactly the needs of the demander, and then selects the most adequate enterprise(s) in the market to perform the so-defined service(s) ;

(ii) the intermediary performs the same consulting tasks, but selects among a list of enterprises, with which it is linked more or less tightly ;

(iii) the intermediary is passive ; it has selected and it updates a list of a certain number of tele-service enterprises, for which are presented the various specialities ; according to its needs, the demander will choose one or several enterprises in the list, which it will then consult (possibly by automatic re-routing by the intermediary).

In these three possibilities, the intermediary appears as an advisor, but also as a certifier for the quality of the enterprises selected.

At last, it should be pointed out that the non-necessity of a physical presence of the provider of tele-service does not impose any longer its geographical proximity. If, generally, the provider of service works at a given address, it is still possible that the achievement of the prestation may be delocalised. More than at present, the development of tele-services will be a factor of globalisation. Without the client being aware of the fact, it is possible to provide him with informations retrieved from data bases largely scattered over the world, to use the services of the best "specialists" of a given question whatever their address in the world, or to have some prestations achieved in some countries because of lower costs.

Electronic intermediation

Without the use of telecommunications, three trends have already been pointed out, namely packaged demand, packaged offer of goods and services and increase of number of intermediaries. It has been seen that the function of intermediary results also from the development of tele-services.

In the latter case, it has been said that the intermediary may have an advisory function when trying to understand the needs of the client and to choose the adequate service enterprises to satisfy them.

In fact, in the near past, this class of intermediaries has appeared, who propose not only a catalogue of services (and also of goods), but, by connecting distinct goods and services, bring satisfaction to more global needs. In so doing, they put together the new functions which process information, from financial services to edition through public services. The motor of this dynamics is, as for trade and central buying offices, what one would call "machines for managing transactions" or transactional centrals. The purpose of this "electronic intermediation" is to organise the contact between numerous providers of services (and producers of goods) and numerous users. More than transforming only the way services are provided. some think that the new intermediaries, along with the new tools of electronic intermediation, will modify greatly and permanently the organisation of production.

It is interesting to note that the "transactional centrals" are, as for now, being developed within groups pertaining, in particular, to the mail order sector (where the technique is known), to the bank and credit sector (where data on clients are currently managed), to the travel assistance sector (where service intermediation is already achieved) and to the sector of management of public nets (telephone, utilities).

The following points can be presented as some hints about the modification of the productive system :

(i) new relationships may develop between distribution circuits such as competition/complementarity between traditional circuits (stores) , direct circuits (mail order), virtual circuits (tele-purchases of goods and services) ; the organisation is not only a question of opportunity (search of the best place at the best cost, for example), but a response to a more strategic purpose (selection of the target-clients) ;

(ii) new industrial relationships may appear, based on partnership and the functionment in nets, with constraining rules, different from those for sub-contracting ;

(iii) the role of commercial information will increase, thanks to electronic processing (gathering of data, enrichment of files, etc.) ; it becomes a new source of value added (a file of clients with useful and targeted information may become actual goodwills for an enterprise) ;

(iv) the competitivity induced by transactional centrals may lead to economies of scale, which, in turn, permit to reduce the costs of the treatment of a client's file and to improve the quality of the associated service (which may become a key factor for gaining the market and keeping permanently the clients).

The complexification of the electronic transactions

With the development of the transactors-advisors and of the transactional centrals, the transaction, which was generally, in the past, the provision of goods or services by one vendor against the direct payment by one purchaser, with some specific conditions attached (delivery, garantee, credit, ...), becomes more and more complex, involving many providers, working at the same time, guarantees, use of rights, etc.

As pointed out, the information component of a transaction may become a commodity by itself (better knowledge of the client, of its tastes, ...) : a transaction has not only a physical value attached to it, but also a distinct information value. Therefore, in the nets, in the relations between users of information, there is not always need to obtain both information and physical values : the information component tends to part from the physical value component.

Furthermore, the transaction can be separated over time between what is before the sale (recruitment), the economic and financial exchange, and what is after the sale (assistance for use, garantee, ...). In the space, the transaction gives raise to many elementary transactions among partners associated to the global production (maintenance and repair and insurance for garantee, credit, ...).

Therefore, in state of counting the value produced, some economists think that it is time to record in terms of value exchanged. This implies the definition of a classification of transactions and the establishment of contract economics.

Counting the value exchanged suppose the description of all associated transactions. For example, the payment of a good by a credit card mobilises a certain number of associated services connected through a transactional center: verification of the validity of the card, opening of a credit line, future (potential) rebate on air transport by accumulation of miles, ... Note, for example, that some services are provided, but a right is also provided (the accumulation of miles is a right of rebate only if an airplane ticket is purchased).

In conclusion, some questions have to be answered, in order, in particular, to establish some kind of classification of transactions , and to set some rules, both for organising the market of information (organisation of a real competition) and to protect the privacy of the participants(2) :

- how do the various information components of a transaction (logistic, financial, administrative, ...) aggregate or disaggregate over time and space, and according to the various partners involved ?

- what is the impact of new computer and telecommunication technologies on these processes ?

- which functions are transfered in the net, and who is going to take them in charge, in particular the functions of certification and of quality control ?

- who controls the transaction processus (and how) as to its legality and its quality and conformity, in particular the value added elements and the advantageous elements linked to a special regroupment of functions in the net (preventing or making difficult the access by non participants in the grouping) ?

- who initiates the communication flows, and manages the separation and aggregation of the various informational components in a transaction ? who monitors the information flows among the various associates ?

These developments are rather complex (like the transaction !) but have to be carefully taken into account to understand what is going on, in particular to measure

(2) The existing rules, in many countries, established to protect the privacy of individuals against an abusive use of computer processings, are an example of the fact that many problems are, in fact, intrisic to a certain factor (here information), but they are enhanced by the use of new techniques (here, the use of various information sources on purchasers has always been looked for by sellers, but this has been eased only lately through the development of computers and telecommunications, which would permit, if nothing prevents it, to aggregate and process many sources on a single physical or moral person).

the impact of the phenomenon, since it is foreseeable that the share of simple or traditional transactions will remain important in the near future, although it will decrease.

One conclusion should be pointed out : there is a decreasing correspondance between the invoice price of a good or a service and the "physical" description of this good or service, even if one includes some contract specificities. The provision of the good or of the service involves other services, which are common to a given enterprise (quality control and obtention of a norm ISO 9000 are not free), or to a given type of transaction (garantee through the verification of a credit card, accumulation of miles).

Some problems for statistics, according to foreseeable changes ?

It has already been pointed out that the intention here is neither to propose new questions to be included in surveys, nor to discuss new variables to study. The purpose of this paragraph is to present some ways where to engage reflexions on variables and questions in order to be ready to modify or to improve the economic information on services at the very moment when a phenomenon becomes important ; this, in turn implies, for the statistician, to detect the time when this phenomenon is starting, in order to provide, when required, statistics on the development of the related variables, and not only statistics on the same variables when the phenomenon has already become important.

Employment

Much of the changes in the services which were presented above are characterised by a shift, if not an increase, in the qualification of the personnel and, also, an increase in the productivity of labor, which implies, for a given level of production, a decrease in employment.

These changes in the service sector are also accompanied with the states policy of developing non qualified jobs, such as so called "community jobs". They are also subject to the general diversification of forms of employment (part-time, variation of time according to the enterprise necessity, different forms of contracts mixing employment and vocational education, ...).

More than the general need to know and to follow the developments of the different forms of employment, there will be a necessity to characterise the various types of functions to be performed in the service sector and to measure their demands and supplies : in fact, what will be required is an information on the markets of specialised jobs, for general information of the enterprises and the potential workers, but also as an element of forecast useful to organise education and training.

Also linked to employment is the knowledge of "delocalised" jobs, i.e. jobs which are performed for an enterprise outside the country where a good or, more easily, a service is produced. This knowledge is for two major purposes :

(i) for the governments, to design eventual policies on salaries and formation to avoid such "loss" of jobs ;

(ii) for the economists to understand better the production function of an enterprise.

It should be noted that, as to employment, the work initiated by the Scandinavian countries and already presented to the Group of Voorburg is a first step toward the improvement of the knowledge of certain forms of employment. It shows the difficulties to develop the related statistics through homogeneous and comparable concepts. This is therefore a reason for preparing urgently the bases for the future investigations on employment and qualifications in the service industry.

The question of "delocalised" jobs is of major importance when several enterprises concur to provide a common set of services ; this is, in particular, the case of subcontracting and of many nets of enterprises ; as to international nets of auditing and consulting services, another paper for the same meeting advocates for the knowledge of the total working forces involved in the provision of a given service.

Enterprise structures

It has been seen that, in the future, in the service industry, the creation or the development of various forms of links between enterprises will take place. Although such forms are not completely new, they have not yet been studied in depth as to their organisation and to their economics. One could argue also that such structures do not exist only in the service sector. Indeed, they exist also in other sectors of the economy, but it is in the service industry that one can forecast major developments along with the most creativity (by comparison with the manufacturing or agricultural sectors).

The most urgent need, in order to be in a position to organise further a correct study of the economic and social impact of these organisations, is to prepare some kind of classification of the main existing and foreseeable structures. The second theme to look into is how to obtain the links from the concerned enterprises, when such links are not basically financial ones.

A review of the classifications of activities

One general fact, which has also been pointed out in the first part, is the emergence of intermediaries in the sector of services or, even, intermediaries in both goods and services. The codification of such agents within the existing activity classifications poses some problems. Furthermore their activity is not always limited to being intermediaries (consulting, service engeneering, ...). In fact, what is required is a careful study of the various existing and foreseeable functions of services (or mostly services) intermediaries in order to review the existing classifications of activities, with the aim of creating some logical room for them.

In another aspect of the problem, some frequent revisions of the service part of classifications of goods and services should be made to take into account the new services which become important.

Statistics by domains

Packaged demand, packaged supply, non specialised intermediary-advisors, ... show that the industry approach of the description of the economy may not be what will be expected from the statistician in the future. Although the activity and the product approaches may constitute the building-blocks of a new approach, it seems that the provision of statistics by domain (tourism, telecommunication, computing, ...) will better and better answer the users'demand;

Such approach is not new but will have to be enhanced. This can be done, in particular, using the concepts and procedures of the satellite accounts, which aim at presenting a comprehensive picture of a given domain (production, consumption, financement). This can be done on a less comprehensive basis, as proposed by Australia at the last meeting of the Voorburg Group, but one should be careful to use consistant concepts and procedures. This is why it is argued here that operations such as the establishment of the OECD tourism manual be started in other sectors where services are important(3).

New price indices

Packaging, provision of a complete integrated ad-hoc service, ... makes it more and more difficult to establish a time-to-time price index for a given well described service, as is the requirement in the construction of traditional indices.

Such difficulty is enhanced by the fact that, on one hand, conditions attached to the provision of a principal service may vary from one period to another, and, on the other hand, as said, the purchase of a service (or of a good) consists not only of a single purchase but of the purchase of other general and specific services and rights.

At last, but this may appear as being some kind of science fiction for the forthcoming years, there might be an expectation of lower price from those enterprises which are entitled to trade the informational part of their transactions (some kind of participation of their clients in the future profits), a procedure comparable to the lower prices practiced by companies which raise important cash and obtain revenues by lending this cash on the money market.

The various difficulties presented hereabove will take more and more importance. They are valid for the making of any time-to-time service price index, but they are already also encountered for goods as well. The fact that traditional time-to-time index formulae will be less and less useful and significant has been pointed out since

(3) It should be noted that the domains are not exclusive from one another.

the end of the eighties by several economists and statisticians, but, so far, it does not seem that research for new price indexes has taken place or, at least, has succeeded.

Internationalisation of statistics

Globalisation makes it difficult to report on the activity of a service industry or of a domain without taking into account contributions from or to foreign partner enterprises (whatever the partnership arrangement may be). It appears that it should be the task of supranational or international bodies to set up and develop, with the participation of national statistical offices, the means to present statistics in line with the transnational organisation of service (and good) provision. It might be necessary to develop global production accounts, but, to go further, there is also a need to define how income repartition account should be developed and how relevant statistics should be collected.

A tentative conclusion : will there still be a specificity of services ?

The various proposals which have been examined in the last part show that the problems are not limited to services, but that one can see similar questions raised in the sectors of production of goods. Furthermore, the approach by type of use (some call it the functional approach) in the economy makes it more and more vain to have a separation between goods and services.

So, will there really still be a specificity of services ? As a part of the development of production and of the economy in general and as to statistical problems encountered, there is less and less specificity for services in comparison with goods. In fact, because of their flexibility, of the flexibility of their production factors, of their rather rapid adaptability to new situations, the specificity of services appear more as a precursor of future general situations than linked to some entities having strong characteristics of their own.

This implies that there will still be a need to follow services separated from goods, not in the view to continuing separate information, but in the view to preparing solutions to general problems for providing integrated information on domains.

However, after some thoughts, another question may be raised : things will not change that rapidly, especially in the time framework of this paper ; therefore the question is to decide if, in fact, as services will keep their specificities of rapid development, adaptation to demand, important methodological improvements, internalisation, ..., the question of them keeping their specificities should not be raised only in five to ten years from now, for example at the twentieth meeting of the Voorburg Group, once again in Voorburg ?