

Innovation in Services

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1. Introduction

I am delighted to be given the opportunity to offer some concluding observations on this seminar. Services and innovation are very broad topics, and one of the most attractive and useful features of this event is that it has focused so sharply on the interplay between the two, i.e. on *innovation in services*. This represents a huge and difficult challenge since this is an area which so far has been insufficiently explored. And, the progress made here has shown that much can – and should – be achieved in this particular realm.

This meeting may prove to have been a very important one for several reasons. One is the lack of appropriate fora to address the issues we have been grappling with, the second concerns the room for improvement that characterises this area, and the third is the creative and focused set-up that we have been able to benefit from here. Nevertheless, it is difficult to provide a very definite or comprehensive set of conclusions. I will attempt to point to certain findings which seem particularly useful at this stage; however, it should be kept in mind that this is just the beginning of the process which will eventually shape the outcomes. This will require an ongoing effort in various groups such as the Industry Committee and other relevant bodies of the OECD. It will also be necessary for the OECD Member countries to continue to work on this matter in their own countries as well as in co-operation with each other in the appropriate multilateral organisations.

The first section below sets out the rationale. I then turn to the questions of definition and measurement. Third, I address the driving forces and barriers to innovation in services. The fourth section attempts to sum up some implications for policy. This, of course, is the true test of what we have achieved here— our ability to undertake work with real policy relevance. Finally, I will make a few concluding observations on policy implementation.

2. The rationale

Is innovation in services a worthy subject for debate? One can only conclude that the deliberations which have taken place over these two days have underscored the tremendous importance of this subject. There are several reasons for this.

The most fundamental has to do with scope. We know that the services sector accounts for approximately 70 percent of value added and employment in the OECD countries. However, the area we are addressing here is huge and goes beyond the services sector per se. Services are being undertaken, and are equally crucial, in other sectors, including manufacturing and others. In fact, the economy is becoming more and more service-oriented, with distinctions between services and non-services making less and less sense. Another aspect is that services are increasingly critical for the employment performance of the economy as a whole. This is evident not only from the number of employment opportunities directly involved in services. Although services remain more labour-intensive than manufacturing, there is a rapid process of skills upgrading, and matching supply and demand for different categories of labour presents a major challenge. From a dynamic perspective, service activities are expected to continue to grow in importance, with growth very much driven by the demand side; however, the ability of the supply side to respond is vitally important.

Meanwhile, the evidence shows that innovation is becoming increasingly decisive for competitiveness and performance in services. It is probably fair to say that innovation now holds the key to service performance. As is already the case in manufacturing, there seems to be less and less scope for making a living purely out of standardised production, low prices and low costs. On the other hand, services have some specific features. Some of these are well-known,

such as the stronger emphasis on immediate consumption, and the presence of barriers to trading and storage. For various reasons, services can also serve as a catalyst for the development of other activities. In some instances, services are of strategic importance in the economy; this is partly because they often have an idiosyncratic element, and can make a crucial difference to a package of products (some of which will be more standardised). Services are often key for the adaptation of broader product categories to specific customer needs.

Furthermore, innovation in services is characterised by properties that are different from those found in other activities (I will come back to this later). Meanwhile, we can observe important ongoing changes in the nature of services as well as in innovation taking place in services. We have evidence that research and development is becoming more important in the services sector, but also that this applies to other forms of innovation - including incremental innovation, and innovation associated with organisational change. We also have observations that services are becoming more tradable, perhaps more cyclical in nature, so there are various indications of significant ongoing changes, underscoring the importance of gaining a better understanding of this area and the issues involved. Today, however, there appears to be a lack of awareness regarding innovation and services, and this is often coupled with misconceptions. For instance, it is not clear to the general public that services are quite skill-intensive. It has also been pointed out that many people view services as an area just for SMEs. It is true that SMEs are important in services, but there is no equivalence between services and SMEs.

And then, finally, we can point to the lack of a policy framework – at least a comprehensive policy framework. Speakers have talked about fragmentation and the lack of a single government portal for addressing relevant policy issues – yet, as I have said before, there are many policy issues that need addressing.

3. Definition and measurement

While there does seem to be a strong rationale for addressing this topic, the question remains as to whether there are relevant and useful definitions that can lay the basis for an operational treatment of it. Do we have the adequate definitions for services? Our Chairman pointed to an interesting definition used in Australia in the past: “services do not produce a thing”. We probably all agree that that definition does not provide us with a notion that we can build on for the future. Also, we can no longer use traditional observations such that services are non-tradable, non-storable etc., since increasingly this is not true in any general sense. It is too early at this point to draw any definite conclusion from this workshop in terms of definitions. However, it is important that we are not restricted to an outdated or too limited perception of services or of innovation. As regards the latter, it is clear that innovation in services goes far beyond research and development. Organisational change, incremental improvement, and other activities that require fairly small fixed costs, seem to take on considerable importance here.

Due to the heterogeneous nature of services, innovation can take very different shapes in different areas, and we can also observe a blurring of the services sector and evolving linkages between various kinds of services as well as between services and manufacturing. In his presentation, Jeremy Howells, University of Manchester, UK, made a very valuable contribution on encapsulation, the implications of which should be carefully examined in the context of definitions. We may need a better categorisation of services which takes account of encapsulation and the growing importance and role of intangibles. Earlier, it was remarked that, in services, the capital walks out of the door every evening. Perhaps this is not always true, since people are increasingly called upon to adjust their working hours in a flexible manner but, nevertheless, it is a good illustration of the situation we need to consider.

Measurement issues have popped up time and time again over these two days. Services and innovation in services, the performance of services, and the link between innovation and performance, are all very difficult to measure. However, this cannot wholly explain the lack of data in this area. It is stunning to find out how much we do not know about the service sector. We do not have comparable measurement of even very basic things. In the area of transport and logistics, for instance, where we have a newly established division at the OECD, basic

information on levels and changes in costs and prices, which would permit meaningful comparisons across countries in the most international of areas, is simply not available. To remedy this situation, there is a need for a broader awareness of what is lacking together with a better articulated demand for improved information on services, and on innovation in services. I will not, at this stage, try to list what we really need to know. That is something that will have to be dealt with in the relevant fora.

Another important observation that was made, inspired by the framework of Jeremy Howells, has to do with the *level* of observation and measurement. Many of the goals of an innovator in services, concern increasing the flexibility, speed or reliability of a product, perhaps in terms of delivery or logistics, or improving the long-term relationship between the firm and its customers or providers, i.e. the purpose may be to provide for a better package for an activity as a whole. This implies that it may often not be possible to gauge the effects on an individual product, but rather they need to be studied in the context of a much broader package with a view to the nature of what is being achieved. There may not be any immediate positive effects for the product itself, but the innovation may enable critical improvement in the performance of inter-firm relationships over a period of time. This aspect is becoming increasingly significant as greater co-operation takes place between actors, and with competitiveness becoming more and more dependent on organisational innovation and change. So, if one measures the value of all services in a piecemeal way, one would miss out on a very important part of the story. We need to invent complementary measurement tools that can bring together the impacts at different *levels*.

Another interesting and important aspect concerns intangibles. We know that the measurement and disclosure of intangibles is impeded by incentive problems both within organisations and between organisations and external resource providers. I will return to that aspect below.

4. Driving forces and barriers

Improving our understanding of innovation in services is very much a question of gaining a better handle on the driving forces as well as the barriers, and how these are changing over time. This meeting has helped to paint a fairly clear, although complex, picture of the driving forces. Skills upgrading and human capital are the cornerstones for successful renewal and upgrading of service activities. On the negative side, educational systems which aim at, and are measured by, quantitative output rather than quality, and which fail to encourage entrepreneurship and creativity, represent one of the most formidable long-term barriers to innovation in services.

Meanwhile, recent years have seen an accelerated impetus stemming from changes in a number of interrelated factors. The expansion of information and communications technology (ICT) and the evolution of the Internet are creating tremendous new opportunities for accessing information. In combination with ICT, rapid progress in a number of technologies, the globalisation of goods and factor markets, and extensive liberalisation and regulatory reform, are opening up many new opportunities for service activities. At the same time, these factors are bringing about increased competition - and more pressures for adjustment. These are particularly hard on SMEs, which have long been predominant in some service activities and have been partly sheltered from globalisation and enhanced competition. Within the next few years, many of these firms will be subjected to a completely different situation, calling for adjustment by firms, their owners and workers, and also by the many regions and municipalities in which they constitute the backbone of the economy. There is good reason to expect that these changes will become much more widespread and will reshape the services sector in many countries and societies that have not yet experienced much impetus in this area. Insufficient readiness for change together with a lack of information on new opportunities and how to tap into them, will represent a major barrier for innovation in services.

Organisational change is of tremendous importance both as a response to developments in other, underlying factors and also as a further driver of innovation. Organisational change takes place particularly within large firms, but also increasingly in smaller ones. Today, it typically leads to a stronger focus on "core business", enhancing firms' capacity to excel in a narrower band of products. The increased tendency towards outsourcing is one element of this trend. Another one

is the establishment of more continuous and mutually beneficial relationships between firms. . Organisational change serves in part to improve co-operation both within and between organisations; it is often essential for reaping the gains of innovation as well as for promoting successful innovation.

Together, these new factors stimulate more dynamic processes of change, speed up innovation and the diffusion of technology, and emphasise the strategic importance of information access and use for incremental innovation. So, here we have essential driving forces of innovation. At the same time, barriers to the flow of information, to competition, to creativity and skills upgrading, and to mobility, stem innovation in services. These barriers are multifaceted and the form they take is influenced by country and cultural specificities.

5. Policy implications

As already indicated, Innovation in services has unique features, with a strong presence of organisational change and incremental improvement. Given these features, this meeting made a clear case for the role played by competition. Generally speaking in services, as compared to manufacturing, there seems to be less of the traditional Schumpeterian concern that market power would be a prerequisite for innovation. This implies that policy makers should strongly emphasise the general business framework and regulatory reform. Various aspects of this have been covered in this meeting, including the importance of conditions which are conducive to effective entry. Regulations need to be consistent and designed so as not to distort investment decisions, e.g., steps should be taken to remove regulatory risk that would otherwise give rise to under-investment . An important aspect concerns how best to implement policy frameworks which are sufficiently stable to allow planning for the long term while at the same time becoming more flexible so that they can quickly adjust to change. This seemingly paradoxical request can be resolved through increased transparency in policy frameworks in a way which facilitates for the various actors in the marketplace to better anticipate how regulators and governments can be expected to respond to change. In fact, it is a question of rendering policy more understandable. If, on the contrary, policy is driven by political whim and is impossible to predict, the result will be under-investment, more short-term investment decisions, less innovation and less organisational change. It is less clear whether reform to intellectual property (IP) rights regimes are important for strengthening innovation in services. This is partly due to the apparently lesser emphasis on market power in services compared to manufacturing. As suggested by Mssrs. Battistelli and Pilat intellectual property rights could become too strict, counteracting rather than supporting innovation. This is not least the case because of the strong role played by incremental improvement, imitation, and organisational change in service innovation. On the other hand, in some areas, such as those strongly affected by counterfeiting, weak IP does create major problems. Further work is needed to resolve when and how reforms to IP regimes are important and helpful rather than deleterious. Moving too fast in this area could be costly. These aspects are especially tricky for those countries and regions, in which IP regimes are weaker or more prone to inconsistencies, and where the demand for reform is thus particularly strong.

That being said, while there is less emphasis on R&D in services, despite the other kinds of innovation, it may very well be that the social returns of innovation are higher than the private returns. One can see this, at least implicitly, in the very strong development not only of competition but also of co-operative relationships. This includes co-operation through strategic alliances, with cost sharing and joint efforts to build up a capacity for more effective internalisation through better use of technologies and information. Policy frameworks should not be formulated in such a way as to limit desirable co-operation of this kind. On the other hand, there is the need to avoid the kind0 of co-operation that stifles competition and leads to higher prices at the expense of consumers.

To the extent that the social returns from innovation are higher than the private returns, there is indeed a case for policy measures that can facilitate or support innovation in the services sector. To my mind, there is a strong message coming out of this meeting that governments cannot continue to rely on support of research and development in traditional manufacturing activities as the core of their policies to promote innovation and competitiveness. This is too costly and entails

foregoing or neglecting the opportunities which flow from other kinds of innovation in the services sector. Innovation policies need to be rethought in this perspective. There are various ways in which support of innovation in services - other than of research and development - could be conceived. These include policy measures to support clusters the development of groups of firms, rather than trying to subsidise individual firms. Ireland, for instance, has applied this kind of approach, but there are also a number of other countries, especially in Europe, that are looking at the cluster approach as a way of strengthening innovation. In any case, policy needs to be based on a clear-cut rationale, in the form of market or policy failure, and measures need to be subjected to critical evaluation.

Another potential policy means is that of improving the measurement and disclosure of intangible assets. The present view of the OECD, I would say, is that it is too early to require reporting and disclosure of intangibles through traditional accounting. While intangibles are difficult to measure and heterogeneous, however, at least in some countries and industries there is now a spontaneous experimentation in reporting of intangibles. This comes in part back-to-back with ordinary accounting procedures, with firms advertising their investments in human capital, in R&D, and in a range of other intangible assets related to brand names, valuable customer relations, etc. You see this very clearly in the green area, with respect to the treatment of the environment, where firms are trying to present themselves as good for the community and society in the broader sense. Intangibles are one part of this argument, and firms are seeking to create goodwill through this kind of reporting.

To date, reporting of intangibles has been completely ad hoc and has not been undertaken in such a way that would have allowed for comparisons across firms. There is a certain trade-off here. On the one hand, it is very positive that this is a spontaneous initiative marked by creativity, and that firms are not locked into what they can do through this kind of reporting. On the other hand, there is a cost to the lack of comparability. And, since one cannot really follow up, evaluate and compare firms against each other, it is of limited use to the market place. As yet, this kind of spontaneous action by private firms is not a fully satisfactory – in fact, it is a far from satisfactory - response to the lack of proper measurement and disclosure of intangibles that leads to biased incentives both within firms and between firms and their external resource providers. Thus, there is room for improvement.

Now, can – and should – governments try to improve this situation? At the OECD, we are currently working with industry and with governments through a task force - the Chairman is actually Australian. The ambition is to propose a framework that is not overly restrictive but that would facilitate comparable reporting and provide a stronger incentive for private firms to go ahead with their experiments in reporting – and do it in a more comparable way. The objective is to obtain more of a market framework for the development and use of information in this area. We believe that this is the way to go at this particular point in time, although further down the road, if a more mature set-up can be achieved, a more ambitious approach may be required.

Several other policy areas are worthy of mention. Without going into detail, the development and maturing of venture capital markets is of tremendous importance for the ability to establish new firms, for the growth of new firms and for the development and use of new technologies in new firms. As was discussed the other day, new technologies can be developed in existing firms or in new firms. A problem arises not because one way is inherently better than the other, but because the creation of new firms is often impeded by the need to overcome information deficiencies and agency problems between those with the ideas, those with the finance, and the entrepreneurs – basically this is about harmonising interests and establishing trust. Mature venture capital markets can be very effective in achieving this. In the United States, an edge in this area has provided an enormous advantage and played a very important role in making that country a leader in many new technologies. However, other countries are now following suit, with governments making efforts to improve the functioning of these markets. It is not a question of putting public funding in place; the challenge is to ensure that market institutions work better and to remove the barriers. This, I think, is very important for the development of service activities as these tend to be intangible and suffer from a scarcity of traditional collateral.

We then have the issue of how to support the quality of human capital. Of course, basic education is key. However, the policy challenge now crucially embraces lifelong learning. This is partly in order to take care of those who are already in the workplace today, but also to put in place a framework for continuous learning which is essential for the development of the services sector and innovation there. Various institutions and incentive structures play a role in this respect, which needs to be carefully examined.

Public procurement represents another important policy domain. Through public procurement, government can take on the role of a demanding customer with a view to developing competitiveness in services through innovation. Given the size of the government, including the many different public authorities, public procurement could represent a far more prominent driving force for renewal and innovation in services than is the case today.

Remote areas require a mention – of course, the issues vary between locations - big cities, rural areas and so forth. Services play a key role in the economy of many remote places, and can enable diversification away from dependence on agriculture and basic industries. Now, and most importantly for the future, ICT is opening up new opportunities, reducing the importance of distance and allowing services activities to be located anywhere. At the same time, there are also spatial clustering effects driven by the availability of the workforce and limitations in mobility of labour - many regions are losing their younger members while traditional skills are dying. That is, of course, extremely worrying for many regions but then, again, there are also the opportunities. So, the basic challenge is about turning this into a virtuous rather than a vicious circle. The OECD's Territorial Development Service is looking at experiences in different locations, including individual towns and villages. While traditional support of sunset industries has seldom worked, today there are many success stories of regions applying development strategies to obtain new sorts of dynamism. Part of the solution is a policy set-up at the national level which allows for decentralisation, e.g., which leaves room to manoeuvre at the local level in the evolution of university-industry linkages. Although there is a need for individual solutions, there is still a case for learning from the experience of others, and there are many positive initiatives in individual communities that can be looked at. So, new opportunities exist for remote areas as well.

6. Policy implementation

Finally, there is the challenge of policy implementation. I very much appreciated our discussions on this topic. We came back to it time after time and it is a reflection of the high quality of this workshop that so much attention was paid to policy implementation. The solution is probably not a Minister for Services – although there was a call for that, perhaps not seriously meant, but I think that proposal underscores the need for putting in place a framework for more comprehensive policy making. The case is out for implementing some sort of institutional set-up that can more forcefully push for consistency and credibility, provide a stronger voice in government for obtaining the data and the regulations that take into account the special barriers encountered by the services sector and perhaps provide the explicit support for innovation in services that is different from innovation in manufacturing. This institutional set-up must rely on interaction between the key players, not only industry but also the users and the consumers, in order to obtain a treatment of services and conditions for services that can take the economy-wide benefits into account. Some countries have already moved towards the establishment of high-level boards and agencies which are responsible for innovation in the broader sense, with services being one component. Finland is a good example of a success story.

These exercises show that high-level backing within government is absolutely necessary. This may have to emanate from the Prime Minister personally in order to obtain effective co-operation between Ministers, agencies and so on. While a top-down responsibility chain is called for – you do not need a top-down spirit. You do need a spirit that accounts for openness – not least in order to get the users involved. However, you do need information to flow in both directions – both top-down and bottom-up; this is critical to the success of the exercise. Perhaps it is time to consider how this could be developed explicitly in the context of services. Having a Minister responsible for 60 percent of the economy is obviously not the solution, but services issues are currently handled in a fragmented way – there is no services portal, although there are issues which specifically

relate to services. I read this meeting as a strong call for taking a good look at what can be done and how it can be achieved.

A final remark on the need for shorter cycles, for the ability to respond more rapidly to changes in demand. This calls for a more flexible and more responsive policy framework. We should view this as an important point of departure for future deliberations.

Thank you.