Introduction

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BACKGROUND

This book is intended as a contribution to the emergent interdisciplinary debate on the internationalization of services. Most of the discussion has concerned public services and intensively traded mass services. In contrast, we are here paying particular attention to services that are knowledge- or technology-intensive. A clearer understanding of the process of internationalization of such services is required because it is an important part – arguably one of the most important parts – of the general process of globalization of production, distribution and innovation. It thus has implications for the international division of labour and the competitiveness of firms, regions and countries.

The growing importance of the internationalization of knowledge- or technology-intensive services has resulted from three main factors. With *economic development*, services have become major players in national economies. They naturally command more attention and strategic action, because of their significance to employment and economic growth. With *technological change*, services have become more important users of new technologies and players in innovation processes. There is a strong case that new technologies make the internationalization of some services more viable, in addition to the more conventional expectation that internationalization speeds up the pace of technological change in services. With *globalization*, the emergence of so-called ‘global’ firms has been as marked in services as elsewhere. Changes in the strategies of industrial multinational corporations have led to the increased internationalization of service firms, while changes in international policies through the European Single Market, the World Trade Organisation (WTO) and the Uruguay Round open the way to greater trade in services.

These three factors are closely intertwined. Moreover, the increased role and internationalization (through trade and foreign direct investment) of knowledge- or technology-intensive services is not only a product of these factors, but also a contributor to them. In turn, these factors are related to current developments in the world economy (and especially in the

economies of advanced industrial societies). Among the most important of these are the following:

1. Substantial and long-term growth in the demand for knowledge- or technology-intensive services is reflected in the high growth rates of business services and a growing 'externalization' of such activities from firms in all sectors. Several developments lie behind this, including the growing importance of research and development, design, marketing, distribution and after-sales maintenance in the business processes of a wide variety of firms.
2. The growth in demand for such services has in part been fuelled by the need for knowledge and capabilities concerning the major new technologies that have been diffusing across the economy over the past few decades. New technology-related services – such as software, web services, biotechnology research and development, and materials engineering services, as well as a whole range of consultancy and training support services – are among the outstanding examples. Services play an important role in the innovation systems surrounding new technologies, as innovation researchers have belatedly come to realize. What has attracted little attention, though, is the way in which many of these service firms are internationalized; for example, some of the highest levels of employment in foreign-owned firms in Europe are in such services. This suggests that such firms play an important role in the international transfer of technology.
3. What has been more widely noted by innovation researchers is that some of these technologies have been particularly important to services, especially new information and communication technologies (ICT), which have been widely adopted in many services branches. There has also been interest, usually from other quarters, in the possibility that the technologies could facilitate internationalization of services. The trade 'enlarging' impact of new ICT in services has received much attention. The notion is that computer-communication systems in general, and the Internet in particular, can be used to enhance trade in information-related services and in the informational components of other services. These systems can also support internationalization by, for example, enabling closer management of overseas operations and franchises, and by allowing better networking among members of partnerships and expert-based professional services. As discussed in later chapters of this book, it may be that the intangibility of services has meant that much of the new trade enabled by ICT is in the form of intra-firm rather than arm's-length transactions. This underlines the relative importance of multinationals in services, and

also suggests the need for a critical examination of trade and foreign investment statistics.

4. The liberalization of domestic and international policies around trade and investment in services has long been on the agenda, and received a substantial boost with the end of the Cold War and the decline of political faith in 'national paths' and national champions. Indeed, it was in sectors such as telecommunications – major users of new technologies – that we saw early pressures for the abandonment of ideas of natural monopolies and the necessity for vital services to be run by state enterprises. The 'deregulation' and opening up of markets for many other classes of services and utilities followed apace, not least because of pressure from multinationals (especially US financial services, which persuaded their government, the most powerful actor on the international scene, to push for liberalization of services trade). The European Union has been eager to support these developments, partly because of its own perceived comparative advantages, partly because of the belief that the dynamism of the European economy was being hindered by barriers to services trade (and by continuing sluggishness in exposing telecommunications and utilities to competition).

Despite the magnitude and rapid pace of these developments, there has been little scholarly analysis of the dynamics and implications of services internationalization. The innovation research community, in particular, has remained surprisingly disconnected, in the main, from those with expertise on services trade issues. Indeed, despite the awakening of interest in services and their role in innovation and internationalization, there is still a great deal of ground to be made up as against more established areas. Both theoretical and policy-related assessments of the service sector continue to neglect the importance of such issues as the impact of organizational and technological developments on the changing nature of the service sector, the increasingly dominant role of multinationals in the process of internationalization of services, and the impacts that these developments may have on services innovation and the role of services in the more general innovation processes.

THE ROLE OF THIS BOOK

The objective of this book is to encourage and contribute to debate on a topic that has been largely neglected in the literature. It is a topic where available statistics are patchy and problematic, so that broad descriptive exercises are valuable (and raise important definitional and conceptual

questions). It is also one where economic and social theory needs to be better developed to handle the new technological and organizational context for services and their internationalization, and the broad range of policy issues (not just trade policy) and strategic considerations (not just locational and outsourcing strategies) that follow from this. The essays in this book thus bring together the contributions of experts in internationalization of services and innovation in services. These experts are drawn from a number of disciplines – they include economists, sociologists with an interest in economics, international business specialists and geographers. Together they provide data analyses and conceptual frameworks that advance the discussion considerably.

The book investigates the following general questions:

1. What is services internationalization, and what are its drivers? What are the roles of technological innovation, changing policies and competitive contexts in facilitating, retarding or shaping this process?
2. What role do international transactions and foreign direct investment in services play in encouraging or hindering the development and diffusion of innovations (technological and organizational) within and between countries (and regions)?
3. To what extent do international transactions and foreign direct investment in services diffuse 'best practice' in technology innovation and management (and also in organizational innovation)?
4. To what extent do international transactions and foreign direct investment in services reinforce virtuous (or vicious) cycles of economic growth (or stagnation)? Can international transactions and foreign direct investment in services be a source of growth and structural adjustment to replace declining manufacturing industries? Are they necessary for a healthy manufacturing sector in the twenty-first century?

To address such questions, the chapters in this book adopt a variety of approaches, including the following:

1. appraisal of trade statistics – clarifying the many challenging features that emerge in terms of trends and national differences;
2. industry studies of knowledge- or technology-intensive service sectors which have experienced the greatest increase in international transactions and foreign direct investment – studies considering, for example, the magnitude of these processes, the changing industry structure and the various geographical regions participating in this process;
3. studies of multinationals which invest in services abroad – addressing

themes such as the technological infrastructure and the organizational forms they utilize in managing global services;

4. empirical and theoretical contributions concerning the effects of international transactions and foreign direct investment on economic competitiveness – examining their interaction with industrial activities and other services and influences on innovation processes and the more general context of services activities;
5. analysis of the policy implications of the internationalization of services in developed and developing countries – where issues of development and competitiveness are naturally raised.

REST OF THE BOOK

The opening two chapters in Part I consider the theoretical traditions that have developed around the analysis of services innovation and internationalization. Miozzo and Miles argue that, despite parallel developments in analysis of internationalization of services and of innovation in services, and despite the evident relations between the two topics, these two strands of literature have rarely been brought together in any systematic way. The main approaches to international production in services fail to integrate notions developed from the economics of innovation. New technology is seen as an enabler, even a driver of internationalization, but the analysis is left there. Moreover, few contributions dealing with innovation in services grapple with developments in the internationalization of service activities, other than as an exogenous impact on the competitive environment faced by firms. Miozzo and Miles argue that the two strands of literature need to be brought together to address the current most pressing questions about internationalization, privatization and liberalization of services. In particular, this would enable the examination of the impact of international production in services on the innovative capacity of host countries and the ways in which a stronger services sector might assist a country's competitiveness in the supply of industrial products. The authors suggest elements of a research agenda that are required to foster an integration of the two approaches.

An equally important theoretical problem is identified in the chapter by Ietto-Gillies, again with implications for the analysis of innovation and internationalization. Ietto-Gillies discusses tangibility and productivity as demarcation criteria for services and manufacturing. New technologies challenge these demarcations by enhancing the complementarity between manufacturing and services, leading to organizational changes in all sectors of the economy and increasing the scope for internationalization. A new

mode of internationalization is fostered – what Ietto-Gillies refers to as an ‘electronically transmittable mode’ which eliminates or at least reduces traditional space and time constraints. These developments may be resulting in a new international division of labour, with incentives for splitting the production process of many services into discrete components, some of which can be ‘downloadable’ and processed by pockets of skilled specialists in less developed or intermediate countries. Ietto-Gillies compares the internationalization of the world’s largest transnational corporations (TNCs) operating in services and manufacturing. Two indices are presented and a data analysis suggests that services tend to be less internationalized than manufactured products. Ietto-Gillies describes the limitations of these types of analysis in the face of technological change. She calls for further research on the sources of productivity growth in the economy, on statistics to take into account the technology intensity of products and processes, and on the various forms of (international) delivery, including electronic ones.

These themes are picked up in Part II. In particular, the two chapters set out the limitations of available measures of international production in services, and also recognize the various modes of international services supply. The aim of Part II is to present an appraisal of available trade and investment statistics. These form fundamental backdrops to the later chapters of the book. The analyses in each chapter confirm many of the general statements regarding the intensification of internationalization in services as new technologies and policies are introduced. Baker (with Miozzo and Miles) examines the trends and patterns in trade and foreign direct investment of European services. Conventional trade in services (cross-border supply and consumption abroad) is important in many services, but it also significantly underestimates the importance of international production and transactions in services. Baker discusses the possible relationship between trade and foreign direct investment in services. In this respect, assumptions derived from the analysis of manufacturing trade and investment may not generalize well to many services. The prospects of greater services internationalization have so far only partly been realized, at least as documented by the available trade statistics. While services dominate the economies of the EU, trade in services in the EU accounts for only about 20 per cent of total trade. Investment, however, is another story. FDI in services accounts for about 55 per cent of total foreign direct investment flows and stocks: a figure much more commensurate with the importance of private service sector activities in domestic economies. Baker goes on to consider cross-national differences, finding that trade is more important for smaller member states, who have the highest trade to GDP ratios. This suggests that there might be stronger motivations in these countries for firms

to trade (and undertake foreign direct investment) and for governments to create incentives to encourage trade and foreign direct investment in services.

Zimny and Mallampally suggest, on the basis of available time series data for the United States, that the internationalization of services as a whole and of a majority of individual service industries now takes place more through FDI than through trade. The relative importance of FDI as a mode of international delivery of services has increased in recent years. The proportion of local sales in total sales by foreign affiliates has risen noticeably for US TNCs operating abroad. This suggests that technological developments affecting services production and delivery have been more to strengthen the ability of firms to compete internationally through the establishment of operations in foreign markets than to strengthen their ability to compete through trade. However, within the category of services that can be delivered by both modes of delivery, trade has increased rapidly, along with FDI-related sales, pointing to increased complementarity of trade and FDI. Also available data suggest that TNCs in the USA are using their international production networks to exploit cost differences in services production across countries to improve competitiveness, but the scope of integrated production (as revealed by intra-firm transactions and affiliate-to-affiliate trade) is as yet limited.

As argued in Part I, new technologies may also be instruments for creating a new international division of labour around the production of services firms. This issue is explored in the contributions to Part III of the book. The capacity of TNCs to segment the production process of services and locate activities in different parts of the world may lead to new corporate and international division of labour. On the one hand, the standardization of certain service components may lead to certain segments of the service production chain being located where appropriate resources (mainly labour) are available and relatively cheap. On the other, there may be different organizational structures at the regional level, with some locations attracting the more high skill and strategic coordination and control functions. Understanding exactly how these trends are combined and intertwined presents huge challenges for analysis. Coe discusses the spatial complexity of TNCs' organizational structures in services, drawing on interviews with USA-based IT firms with bases in Singapore. Coe concludes that the processes of international expansion are complex in services. Notably, service activities in the firms presented are coordinated and organized at an intermediate 'regional' level between the 'national' and the 'global'. As TNCs increasingly organize their operations at the regional level, regional headquarters (places that attract the coordination and control functions) may become necessary structures to implement global

strategies at the regional level. This is usually seen as a highly desirable form of foreign direct investment for host countries, owing to the relatively high quality direct employment they provide, the high levels of interactions with financial and business services in the host country, and the influence that may be brought to bear on investment decisions of the parent firm. Coe finds heterogeneous and complex organizational structures at the regional level. For example, Singapore, through being home to both the Southeast Asian or Asia-Pacific headquarters and support functions of many US IT firms, has attracted significant numbers of high-quality jobs (for regional sales, marketing and implementation teams). Overall, the US IT industry's investment in Southeast Asia reveals different dimensions of spatial variation occurring within a broadly multiregional structure – interregional variations, intraregional variations and intra-activity variations.

The new developments in the wider international division of labour are associated with a concentration of knowledge- or technology-intensive services in certain important cities, despite the claims that new technology frees us from the constraints of spatial location. Rubalcaba-Bermejo and Gago-Saldaña test the role of international and national effects in regional concentration of European business services. Many innovative services were traditionally located only according to national, regional or urban patterns. However, internationalization may be rendering international effects increasingly important in shaping the pattern of concentration of business services. The chapter presents comparative European results on the location of business services, relating them to key explanatory factors (qualifications, innovative performance, density and economic development). Eurostat data for five countries suggest that both national and international effects are relevant in determining the regional concentration of business services. The density variable and the number of patents per 1000 inhabitants turn out to be outstanding locational factors, when both national and international effects are controlled for. Business services location is closely linked to urban density, national profiles and regulatory factors, and, at the same time, to the degree of exposure to international competition. Also the correlation between business services and GDP per inhabitant is positively biased by the presence of international cities, which are the ones most exposed to international competition. The study provides a valuable starting point for considering the future development in space – and thus the internationalization – of business services.

The chapters in Part IV address this issue more directly with firm-level data. The chapters here contribute empirically to the analysis of trends, characteristics and the factors that enable and hinder the internationalization of services. The survey data, drawn from different countries, regions and sectors, enable a greater understanding of the strategy and modes of

internationalization among services firms, as well as the location of their activities abroad. Roberts reconsiders the findings of her survey of internationalization of UK business services carried out in the early 1990s, in the light of recent technological developments that have facilitated the growth of resource-oriented internationalization within the service sector. The earlier study highlighted the market-oriented nature of the internationalization of business services. Since resource-oriented service activity is characterized by high levels of standardization, this would seem to be of limited value when customized and knowledge-intensive business services are being produced. Nevertheless, Roberts points out that, while core business services activities remain market-oriented, there is scope for resource-oriented activity in the production of highly standardized service components. International production can also be seen to be emerging, based on the location of skills in the form of centres of excellence, for example.

Henten and Vad use data from a survey commissioned by the Danish Ministry of Industry to show that, contrary to theoretically based expectations, exports are the predominant mode of internationalization by service firms in Denmark. This result questions the sharp division between manufacturing and services sectors. The surveyed firms unexpectedly regard their services as being relatively standardized, which gives us a clue to their exportability. Another result is that, to a higher degree than in other services, information-intensive services use telecommunications to deliver their services. As for barriers to internationalization, a major factor is not external constraints such as external conditions and regulations in foreign countries, but, rather, a lack of ambition to expand internationally which predominated in the vast majority of firms with no international sales. While policy makers and managers have mainly concentrated on the external obstacles to the international expansion of service firms, these results suggest that they should also consider the internal resources and motivations of firms. Information and communication technologies may also form important tools in the process of internationalization, which could also be foci of policy.

Toivonen's analysis of the internationalization of knowledge-intensive business services in Finland is based on extensive interviews with firms and professional associations. She shows the multiplicity of international activities and the new ways of operating in international markets. The study confirms that the degree of internationalization of knowledge-intensive business services is higher than in other services sectors. In some technology-based knowledge-intensive business services (such as software firms), the share of exports is important and growing, but Toivonen also points out the increasing importance of mergers and acquisitions as forms of internationalization. These results also underline the importance of chains of

foreign origin, which hold a strong position in several knowledge intensive business sectors, such as advertising and auditing. These forms of internationalization, and even small-scale internationalization (that is, serving foreign clients in the home country) require strategic change, especially for small knowledge-intensive business services. Toivonen argues that the greatest difficulties for knowledge-intensive business services in internationalization are related to business skills. The results of the interviews call for an examination of the more indirect and non-equity forms of internationalization, such as assignments involving an international dimension, and international networks; these are particularly important in the non-technological knowledge-intensive business services.

Randles and Tether investigate the relationship between knowledge-intensive services and manufacturing in firms active in environmental technologies and services in the North West of England. Their findings show that services firms help manufacturers in the North West of England to gain access to overseas markets, but also help foreign manufacturers gain access to the UK and the North West of England regional market. In so doing, they play both a positive role in supporting 'cluster' development and a negative role in undermining this development. The chapter examines critically the benefits and drawbacks of a 'cluster perspective' for analysis and policy and suggests a critique of the 'stages' approach to the internationalization of knowledge-intensive services.

The chapters in this book provide a rich and diverse set of materials that contribute to the understanding of internationalization, technology and services. Through a combination of insights from different disciplines and methodologies, the contributions cast light on issues that are important parts of the general processes of globalization of production and innovation. In many ways, this marks the opening-up of a field of study. Both the implications of internationalization of services for innovation and the implications of innovation for the internationalization of services, need to be examined in more detail. We will need to get away from simplistic assumptions about the inevitable trade-enabling effects of ICT, or the boost to innovation that is yielded by international competition, and examine under just what conditions and how these tendencies are, or are not, manifest. Future research work needs to address such issues as the vulnerability of service operations to relocation through new technologies, the particular modes of location of service multinationals (and how these evolve) and the difference in strategy in different regions and sectors. The extent to which international services firms, especially knowledge- or technology-intensive services firms, add knowledge to (and enhance the productivity of) the alliances, clusters, regions and countries in which they are (or choose to be) located needs to be addressed further. Such research

should help inform the answers to a final set of questions, which, perhaps more than this, depend on the scope and capability of national and pan-national governments to exercise political choice. What types of policy instruments can support a positive interrelationship between internationalization and innovation in services? How can such instruments be generated and implemented? What are their complementarities and contradictions with other policy goals, such as social equity and sustainability?