

Global business services

Increasing specialization and integration of the world economy as drivers of economic growth

Global
business
services

565

Jochen Wirtz
*Department of Marketing, National University of Singapore,
Singapore, Singapore*

Sven Tuzovic
*Department of Marketing, Pacific Lutheran University,
Tacoma, Washington, USA, and*

Michael Ehret
Division of Marketing, Nottingham Trent University, Nottingham, UK

Received 31 August 2013

Revised 4 February 2014

19 August 2014

Accepted 7 February 2015

Abstract

Purpose – The purpose of this paper is to explore the contribution of global business services (GBS) to improve productivity and economic growth of the world economy, which has gone largely unnoticed in service research.

Design/methodology/approach – The authors draw on macroeconomic data and industry reports, and link them to the non-ownership concept in service research and theories of the firm.

Findings – Business services explain a large share of the growth of the global service economy. The fast growth of business services coincides with shifts from domestic production toward global outsourcing of services. A new wave of GBS are traded across borders and have emerged as important drivers of growth in the world's service sector.

Research limitations/implications – This paper advances the understanding of non-ownership services in an increasingly global and specialized post-industrial economy. The paper makes a conceptual contribution supported by descriptive data, but without empirical testing.

Originality/value – The authors integrate the non-ownership concept and three related economic theories of the firm to explain the role of GBS in driving business performance and the international transformation of service economies.

Keywords Global business services, Outsourcing, Offshoring, Resource-based view, Property-rights theory, Entrepreneurial theory of the firm, Non-ownership

Paper type Conceptual paper

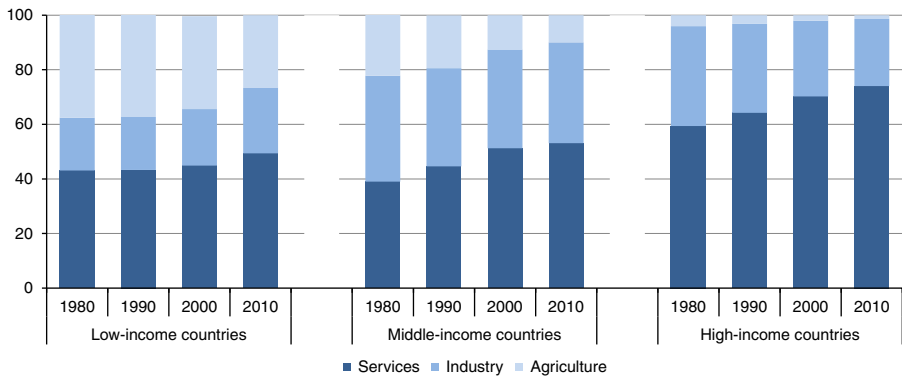
Business services as engine of economic growth

Structural change and the importance of the service sector in the world economy

The service sector accounted for over 70 percent of global gross domestic product (GDP) in 2010 and has been expanding at a quicker rate than the agriculture and the manufacturing sectors for many decades (see Appendix 1). The share of services value added of GDP tends to rise significantly with a country's level of income, standing at 73 percent on average in high-income countries (77 percent in the USA), against 54 and 47 percent, respectively in middle- and low-income countries (WTO, 2010) (see Figure 1).

The current importance of the service sectors' contribution to GDP follows decades of sustained growth, which is also mirrored in employment statistics (see Appendix 2). Over the last two decades, employment shifted significantly from agriculture and industrial sectors to the service sector (WTO, 2012). At the end of Second World War, employment in the services sector accounted for only 10 percent of US employment, compared with





Notes: Economies are divided according to 2012 gross national income (GNI) per capita, calculated using the World Bank Atlas method. The groups are: low income (\$1,035 or less); middle income (which is differentiated in lower middle income, \$1,036-\$4,085 and upper middle income, \$4,086-\$12,615); and high income (\$12,616 or more) (The World Bank, <http://data.worldbank.org/about/country-classifications>)

Source: Authors' calculations based on data from the World Bank. If you would like to use the underlying data or use the figure, please contact Sven Tuzovic

Figure 1.
Sectoral development
of world economies:
service sector value
added in percent
of GDP

38 percent for manufacturing (Adam, 2013). Today, 78 percent of American jobs are in the service sector. It is worthwhile to note that Asia follows the USA toward a service-driven economy. Asia is on the verge to turn the “world’s factory [...] into an economy driven by services” (Adam, 2013), where services exceeded 50 percent of GDP in 2013 for the first time. We argue in the next section that a key driver of the strong demand for services is the transformation of manufacturing and the closely related phenomenon of outsourcing.

Outsourcing and the growth of business services

Outsourcing refers to a “contractual agreement according to which the principal requires the contractor to carry out specific tasks, such as parts of a production process or even the full production process, employment services or support functions” (Eurostat, 2008, p. 359). That is, products or services that were previously provided internally are bought from another (domestic or offshore) company. Outsourcing involves greater specialization as firms switch from sourcing inputs internally to sourcing them from independent suppliers (Sako, 2005). Outsourcing relates to the fundamental questions of why firms exist, and whether and what a firm should make or buy (Massini and Miozzo, 2010). Primary drivers of outsourcing include consolidation, costs benefits, vendor expertise, strategic capabilities and increasing supply chain efficiency (Ndubisi, 2011; Ramioul and Kirschenhofer, 2005) as well as gaining constant access to the latest technology, enhanced cash and balance sheet management and tax efficiency (Wittkowski *et al.*, 2013).

Business services are provided to other businesses rather than directly to consumers. Business services consist of a variety of knowledge-intensive and creative professional services (e.g., legal, accountancy, market research, consulting, design and research and development (R&D)), IT and technology-intensive services (e.g., data processing, database activities and IT and communications infrastructure-related services) as well as diverse activities such as financial, labor recruitment and operational support services

(e.g., industrial cleaning activities) (Abramovsky *et al.*, 2004; ECORYS, 2012; Eurostat, 2009; OECD, 2007). According to Rubalcaba-Bermejo (2004), business services contribute to global access to capital, and productive inputs and technology, but also to access to new markets and, more recently, to offshoring and international outsourcing processes. In recent years, several government and industry reports (e.g., BIS, 2010; Fersht *et al.*, 2011; Huber and Danino, 2012; NSF, 2012), and the academic literature in domains such as economics (e.g., Ciarli *et al.*, 2012) and services marketing (e.g., Ehret and Wirtz, 2010; Ehret *et al.*, 2013; Ndubisi, 2011; Wirtz and Ehret, 2009) have raised attention to the rise of business services.

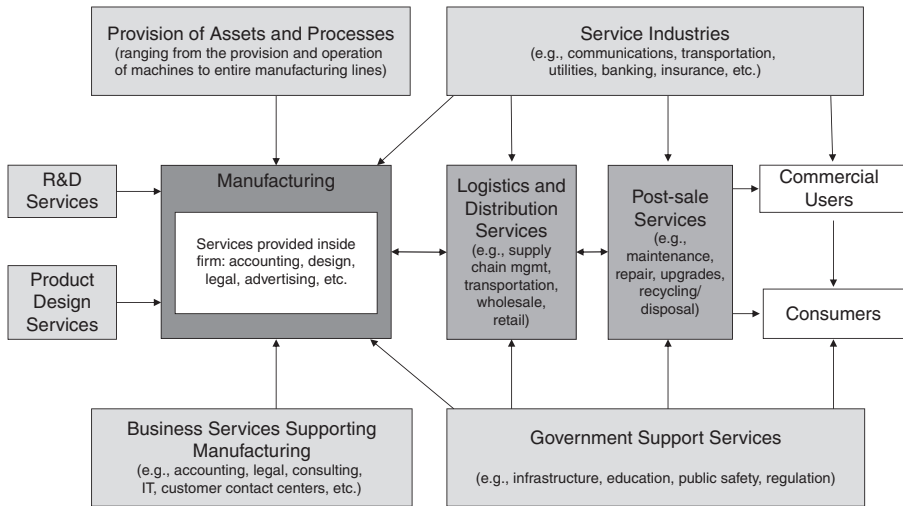
The underlying dynamics of the fast growth in business services are demonstrated in the following example. A manufacturing firm operates its own canteen with 100 workers, who in the national statistics are classified as “manufacturing employees,” and who produce “manufacturing output” (their output is captured in the added value created by their employer, i.e. the manufacturing firm, and contributes to the GDP of the manufacturing sector). However, how good is a manufacturing firm in designing and running kitchen processes, supervising chefs, purchasing cooking ingredients and controlling quality and costs in a canteen? The general answer is that a manufacturing firm would probably neither produce great food nor be cost effective. The reasons for this are threefold. First, the operation lacks economies of scale and is high on the learning curve. Second, the manufacturer does not have the experience of catering to many sites, which makes management, cost and quality control difficult. Third, the manufacturer has little incentive to improve processes or conduct R&D on its canteen operations, mainly because of the low criticality of canteen operation to its overall business. As such, the canteen would neither justify much management attention nor investments in process improvements and R&D (Wirtz, 2000; Wirtz and Ehret, 2009, 2013).

Many manufacturing firms have recognized this problem and outsourced their canteen operations. The winning bidder is likely to be a firm that specializes in running canteens across many sites. That company makes “operating canteens” its core competency, so the operation is managed with an emphasis on service quality and costs (sites can be benchmarked internally), has economies of scale, and is way down the learning curve. It also makes sense for the firm to invest in process redesign, innovation and R&D as the benefits can be reaped across many sites. What used to be a neglected support activity within a manufacturing firm has become the focus of management and the core competency of an independent service provider. Similar arguments can be advanced for a wide range of support services which has led enterprises to be able to hire almost any conceivable business activity, capability and asset as a service (see Figure 2), and allow for an array of innovative new business models (Ehret *et al.*, 2013).

Gaining an estimate of the true share of business services is far from trivial. The dominant approach of economic statistics is to classify outputs. For example, the approach is used by the EU’s statistical nomenclature NACE (“Nomenclature générale des Activités économiques dans les Communautés Européennes”), Revision 1.1. Table I outlines the main sectors that encompass business services based on NACE.

However, businesses use virtually any type of output, ranging from raw materials, electricity and passenger cars, to travel and hospitality services. Used in isolation, output-based measurements as used by NACE do not reveal the role of business services. In addition, it is important to note that predominantly output-based statistics are ill-equipped to capture the substitution of in-house services by external service providers that drive the rise of business services in the economy (OECD, 2007). Statisticians have started to address these shortcomings by having a closer look at the user side of

Figure 2.
Enterprises can hire almost any conceivable business activity, capability and asset class as a service



NACE code

NACE code 72: computer and related activities

- 72.1 Hardware consultancy
- 72.2 Software consultancy and supply
- 72.3 Data processing
- 72.4 Database activities
- 72.5 Maintenance and repair of office, accounting and computing machinery
- 72.6 Other computer-related activities

NACE code 74: other business activities

- 74.11 Legal activities
- 74.12 Accounting, book-keeping and auditing activities; tax consultancy
- 74.13 Market research and public opinion polling
- 74.14 Business and management consultancy activities
- 74.2 Architectural and engineering activities and related technical consultancy
- 74.3 Technical testing and analysis
- 74.4 Advertising
- 74.5 Labor recruitment and provision of personnel
- 74.6 Investigation and security activities
- 74.7 Industrial cleaning
- 74.8 Miscellaneous business activities

Notes: NACE is the European standard classification of productive economic activities used by Eurostat. In the USA, the North American Industry Classification System (NAICS) is the standard used by Federal and State agencies in classifying industries and business establishments (US Census Bureau). NAICS distinguishes six different business service industries: information (51), finance and insurance (52), real estate and rental and leasing (53), professional, scientific and technical services (54), management of companies and enterprises (55) and administrative, support, waste Management and remediation Services (56) (for more details see www.census.gov/eos/www/naics/)

Source: Eurostat (2008, 2013)

Table I.
Overview of the
business services
sector

economic activity, like, for example the application of input-output analysis of GDP. If we apply this user perspective, we recurrently identify a hitherto largely unnoticed sector of business services (see Woelfl, 2005). Input-output analysis regularly identify strongest demand in two domains of the NACE statistical nomenclature, namely, 72 “Computer and related activities,” and 74 “Other business activities,” with the latter relating predominantly to business consulting.

In the past, economic research held that services lag in productivity behind manufacturing and therefore inhibit economic growth – a phenomenon called “Baumol’s disease” (Baumol, 1967). This argument applied to certain consumer services, where productivity may not be the main purpose of service consumption or is hard to measure (e.g., a fine-dining experience or an opera performance). However, if services are supplied to businesses, they can significantly contribute to productivity growth of manufacturing as well as the overall economy (Oulton, 2001; Wirtz and Ehret, 2009). Indeed, macroeconomic research has repeatedly identified knowledge- and technology-intensive (KTI) business services as one of the fastest growing areas of the economy in terms of adding value to the output of manufacturing as well as employment generation and trade value (Bain and Company, 2012; BIS, 2010; Eurostat, 2008; Fersht *et al.*, 2011; González Mieres *et al.*, 2012; NSF, 2012; OECD, 2007). The sector’s share of GDP has at least doubled in the past 25-30 years in most OECD member countries (OECD, 2007). In contrast and contrary to common belief, there has been little change in the share of value added of consumer services (e.g., restaurants, hotels and retailing) over the same period (Woelfl, 2005).

According to a recent industry study, the business services sector in the European Union accounted for almost two trillion Euro revenue, 24 million jobs and more than five million enterprises (ECORYS, 2012). In the USA, the business services sector accounted for about 25 percent of employment (more than twice the size of the manufacturing sector) in 2010 (Gonzales *et al.*, 2012). It also had the highest growth rate from 1997 to 2007 of 29 percent; compared to a 23 percent growth rate of consumer services (such as hospitality, health care and education), and a 21 percent decrease in manufacturing (Jensen, 2011). Figure 3 illustrates the global growth of KTI service industries from 1998 to 2010. Global value added of these industries totaled \$18.2 trillion in 2010, representing 30 percent of the world’s GDP (NSF, 2012).

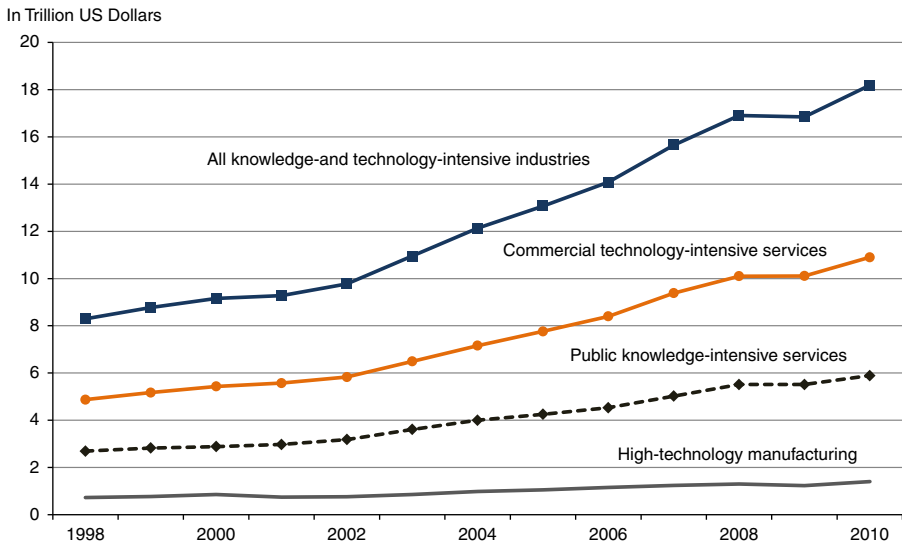
In conclusion, business services in general, and KTI services in particular, are the fastest growing segments in the world economy.

The globalization of business services

International services trade and the contribution of business services

Services used to be considered as non-tradable in the trade policy literature (Gonzales *et al.*, 2012). Recent advances in communication and information technology (including the internet) have reduced the need for face-to-face contact in the provision of many services and thereby removed one of the major barriers of services trade (Jensen, 2009). As a result, the service sector has been playing an increasingly important role in the globalization of the world economy, and the growth and development of many countries. Official statistics show that the share of global exports of services has been growing steadily, reaching 21 percent of world trade in 2009 (WTO, 2010). The pace in the globalization of services has been outstripping the globalization of goods over the past decade (Mann, 2005).

While increased outsourcing of business services has led to a jump in international service trade (OECD, 2007), Eichengreen and Gupta (2012) identified a new wave of global business services (GBS) that further stimulate service trade. This second wave is



Notes: The Organization for Economic Co-operation and Development (OECD) has identified ten categories of industries that have a particularly strong link to science and technology, collectively referred to as knowledge- and technology-intensive (KTI) services (NSF, 2012). Of the ten categories, five are in knowledge-intensive (KI) service industries which can be subgrouped into commercially-traded KI services (i.e. financial, business, communications services) and publicly regulated or provided KI services (i.e. education and healthcare services). Furthermore, they include five high-technology manufacturing industries that spend a large proportion of their revenues on R&D (they are: aircraft and spacecraft, pharmaceuticals, semiconductors, and communications equipment and scientific (medical, optical, and precision) instruments)

Source: Authors' calculations based on data from the National Science Foundation. If you would like to use the underlying data or use the figure, please contact Sven Tuzovic

Figure 3. Global value added of knowledge- and technology-intensive industries (1998-2010)

comprised of services that use advanced information and communication technologies (ICTs) (i.e. financial, communication, computer, technical, legal, advertising and business services), which increasingly makes such services tradable across borders (Eichengreen and Gupta, 2012). For example, Singapore Airlines outsourced many processes such as ticketing, financial accounting and payroll functions to specialized offshore service providers in India and the Philippines in a drive to cut non-fuel expenses by 20 percent as a response to an economic crisis that required drastic cost saving and reducing fixed costs and making them variable through outsourcing (Heracleous and Wirtz, 2010), and this trend has continued since (Heracleous and Wirtz, 2012). The GDP of those modern services has risen over the last 30 years from 7 to 15 percent (Eichengreen and Gupta, 2012). Figure 4 illustrates the increase of exports of commercial knowledge-intensive services for selected regions and countries from 1998 to 2010.

A number of other statistics also reflect the importance of business services in this current globalization wave (Rubalcaba-Bermejo, 2004). The professional and business services sector has become more export intensive. For example, in the USA the share of export-supported service jobs rose from 19.0 percent in 1993 to 24.5 percent in 2010.

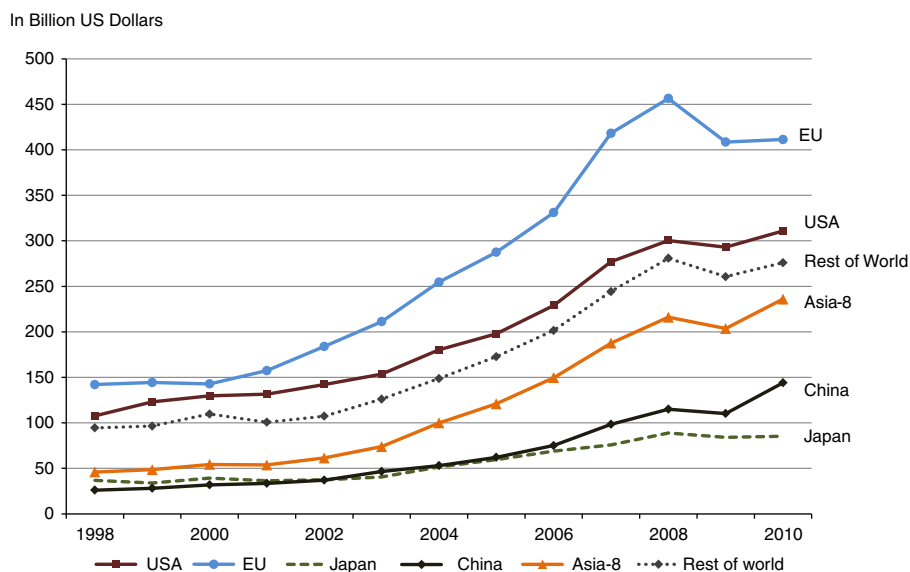


Figure 4.
Exports of
commercial
knowledge-intensive
services by selected
regions and
countries (1998-2010)

Notes: As classified by the OECD, commercial knowledge-intensive services include financial, business and communications services (NSF, 2012). Public knowledge-intensive services (such as education and healthcare services) are not included in this chart

Source: Authors' calculations based on data from the National Science Foundation. If you would like to use the underlying data or use the figure, please contact Sven Tuzovic

In contrast, the share of export-supported manufacturing jobs declined from 41.4 percent in 1993 to 32.4 percent in 2010 (Rasmussen and Johnson, 2012). Furthermore, growth rates in international trade of business services have been higher than trade in total services as well as the world economy (Rubalcaba-Bermejo, 2004). Examining multinational corporations' (MNCs) supply chains, one can see that a substantial share of an MNC's production processes in their global supply chains is taking place in international markets, including developing countries. For example, Siemens Business Services (SBS), founded in 1995, has developed into a global full-service provider of ICT solutions and services, offering a complete "consult-design-build-operate-maintain" chain of services (EMCC, 2005). SBS is now present in 44 countries with approximately 70 percent of its contracts delivered offshore.

Recently, the impact of service offshoring has entered the labor market debate (Grossman and Rossi-Hansberg, 2008; Jensen and Kletzer, 2010), whereby the basic premise is that "individual tasks that can be codified and digitized may be sliced off, outsourced and offshored, for instance to low-wage countries" (Gonzales *et al.*, 2012, p. 177). On the one hand, the increasing division of labor has led to higher productivity. On the other hand, critics of offshoring argue that the result is a migration of jobs from developed economies (e.g., the USA, EU and Japan) to countries where salaries are much lower (e.g., India, the Philippines and Russia) and lead to labor cost arbitrage (Criscuolo and Leaver, 2005).

GBS models and the rise of the offshore services industry

Offshoring services is a relatively new and growing phenomenon. The offshore service industry refers to services that are conducted in one country and consumed in another

(Gereffi and Fernandez-Stark, 2010). While prior to the turn of the century, offshoring was mostly confined to the manufacturing sector, offshore services have emerged as a dynamic global sector over the past two decades, driven by the rise of ICTs, the international tradability of services and the evolution of GBS models.

Figure 5 shows different business models or trajectories that may develop in the outsourcing and offshore services industry (Gereffi and Fernandez-Stark, 2010; Massini and Miozzo, 2010; Sako, 2005). The first scenario (Arrow 1) describes a firm’s decision to outsource services locally. Arrow 2 describes a situation where a firm switches from a domestic supplier to a foreign supplier. In some cases, firms make the decision to outsource and to offshore to a foreign supplier simultaneously (Arrow 3). The fourth scenario is when firms source from foreign locations by establishing a foreign affiliate (Arrow 4). This is often referred to as “captive offshoring.” Lastly, switching the service provision from a foreign affiliate to a foreign-owned supplier (Arrow 5) may occur, often involving the sale of foreign affiliates to local firms (Sako, 2005).

While outsourcing and offshoring are distinctive processes that relate to firm and country boundaries, and which can occur independently or jointly, more recently GBS have emerged as a “predominant model that progressive, and increasingly mainstream, organizations are employing to manage their collective shared services and outsourcing efforts (in a global context)” (KPMG, 2013, p. 6). The term GBS has been applied to a variety of models attempting to coordinate service delivery across multiple functions such as finance and HR (Deloitte 2013). According to Huber and Danino (2012, p. 2), GBS represent an “integrated compilation of service offerings for any (multiple) support functions within a company [...] global in nature and with respect to both delivery centers and customers.” That is, GBS models are different from the traditional approach of shared services and the past wave of manufacturing outsourcing/offshoring (see Figure 6) and should be viewed as a fundamentally different way of thinking about support services.

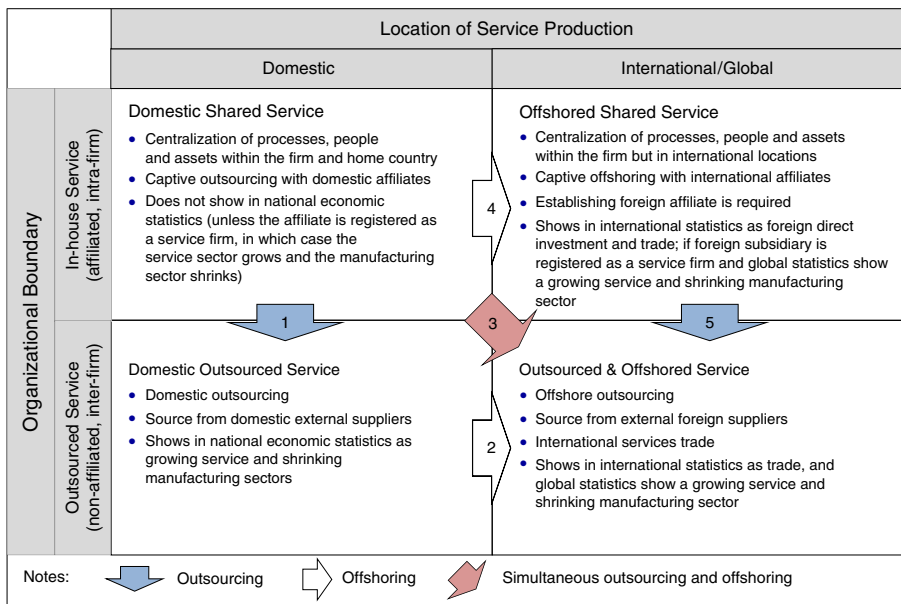


Figure 5. Business models in the outsourcing and offshore services industry

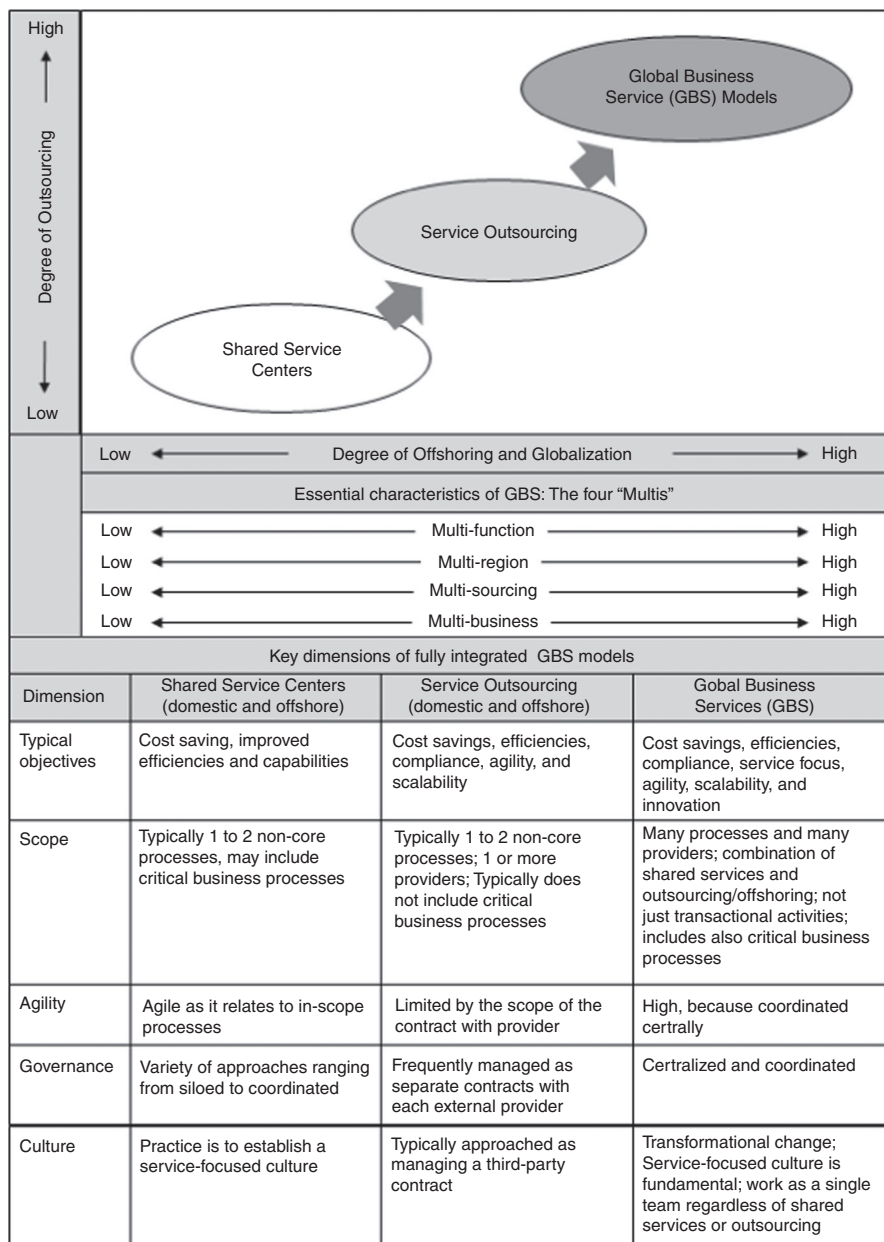


Figure 6. The evolution and key dimensions of global business services models

While many shared services and outsourcing strategies remain siloed and poorly integrated into corporate strategies with little alignment within the organization (Fersht *et al.*, 2011), GBS models are multi-function, multi-region, multi-source and multi-business all at the same time and have a common leadership and governance structure that is closely tied to the firm's organizational objectives (Deloitte, 2013).

GBS models are multi-function in scope, transcending an organization's traditional silos (Deloitte, 2013). As a result, they have significant integration across common functions such as finance, HR, IT, customer service and operations. Furthermore, GBS models offer companies access to expertise and capabilities across the globe. While early forms of outsourcing and offshoring may have started in one region, fully organized GBS organizations are characterized that they operate globally both in terms of their delivery systems as well as their customers (multi-region).

GBS hold the potential of broadening the resource base of companies as they unlock efficiencies in operations (Fersht *et al.*, 2011). That is, value is captured through economies of scale, simplification, standardization and arbitrage of skills and labor (Huber and Danino, 2012). As GBS organizations evolve, firms will employ a multi-sourcing concept in which businesses work with several suppliers, that "are competitors in a spirit of trust and teamwork, in a collaborative process to maximize the benefits associated with outsourcing process" (Andone and Păvăloaia, 2010, p. 163). Finally, GBS are considered multi-business. While outsourcing initiatives typically evolve out of a single business unit (often the largest one) GBS organizations serve the more than one business unit, applying best practices to the entire enterprise (Deloitte, 2013).

GBS: contributions of the non-ownership perspective

The rise of the service economy has spurred an intensified debate about the conceptual foundations of services. GBS are a case in point: with a growing supply of tradable KTI business services, the lines between services and manufacturing are increasingly becoming blurred as firms are gaining access to capabilities and assets without the necessity of owning them (Lovell and Wirtz, 2011). In such settings, commonly used definitions of services may result in confusion. For example, researchers traditionally tended to use specific characteristics of services like intangibility, heterogeneity, inseparability and perishability (also referred to as IHIP) to distinguish goods from services (Zeithaml *et al.*, 1985). However, the IHIP categorization does not capture important subsectors of business services such as rental, outsourcing or leasing (Lovell and Gummesson, 2004; Wittkowski *et al.*, 2013). For instance, the outsourcing of support functions represents a division of labor and the introduction of a new organizational interface (between the firm and an external service provider) as internal operations are substituted by an externally sourced service. The result is that the firm (which now becomes the client) has delegated assets, processes, responsibility and managerial control to an independent external service provider. One of the latest examples can be seen in the development of new marketplaces (e.g., Skillbridge.com, HourlyNerd.com) that allow startups and small businesses to hire consultants and freelance MBAs by the hour (Zlomek, 2013).

Lovell and Gummesson (2004) criticized the existing distinction between services and goods, and offer a new lens for services marketing: non-ownership or rental/access of services. They argue that services can be defined as transactions without the exchange of ownership rights (i.e. the customer gains the right to use tangible or intangible resources), whereas goods businesses entail the trading of ownership titles. In this light, services are characterized as market exchanges that convey benefits through temporary access rather than ownership, which is commonly referred to as the non-ownership perspective or the rental-access paradigm.

This approach captures decisive features of service industries in general and business services in particular (Wirtz and Ehret, 2009). For example, renting assets or hiring an accounting firm provides clients with the opportunity to enjoy the potential benefits

without necessarily owning the former or employing the latter. However, if companies perceive assets and people as a burden, why do they find service providers who are willing to take on these responsibilities? A key reason is that specialized service providers see the provision of these processes, assets and people as a business opportunity and they build core competencies around those (Rifkin, 2000). As such, business services build upon the re-allocation of ownership from clients to service providers, thus enabling collaborative modes of value creation (Ehret *et al.*, 2013). The economic potential results from the fact that ownership carries both costs and benefits. By refraining from ownership, clients tap into benefits of division of labor between organizations. This thinking underlies the debate of the economic theory of the firm which we will focus on next.

Theories of the firm: linking division of labor and specialization to the rise of business services

A casual perusal of industry histories suggests that firms undergo periods of integration, followed by disintegration, perhaps followed again by re-integration (Jacobides and Winter, 2005). One of the key questions in this context is, what drives the emergence of new ways to organize an industry's value chain? Why is it beneficial for firms to outsource services in addition, or as an alternative, to their own operations? Or, in ecological terminology, what enables the "speciation" of new vertical participants along an industry's value chain (Jacobides and Winter, 2005)? And in a global context, what drives the recent growth of services offshoring? In economics, this question has led to several research streams within the wider field of the theory of the firm. We discuss in the following subsections three interrelated streams of research that shape the core topics and challenges of that realm (see Table II).

Property-rights theory: services as an alternative to ownership

Property-rights theory was developed for the analysis of economic issues arising from shared use of assets. Previous research (e.g., Ehret and Wirtz, 2010; Wirtz and Ehret, 2009)

Theory of the firm	Summary and value propositions of business services
Property-rights theory	<p>Highlights efficiency conditions (i.e. measurement and governance costs) in a snapshot and determine the efficient division of labor between provider and client</p> <p>Focusses on the costs of ownership as a crucial factor driving the growth of business service providers as more efficient asset owners</p> <p>Business services reduce the costs of asset ownership</p>
Resources-based view	<p>Highlights how business services can free scarce management capacity from non-core activities to focus on high-value-creation opportunities</p> <p>Provides an explanation for strategic shifts of a firm's boundaries toward market opportunities</p>
Entrepreneurial theory of the firm	<p>Proposes the firm as a tool for entrepreneurs to explore and exploit business opportunities, highlighting ownership and contracts as tools for entrepreneurs to assume control of their most promising projects through equity</p> <p>Suggests that the use of service outsourcing along the value chain is an important way to navigate organizational boundaries to most promising business opportunities</p> <p>Business services enhance entrepreneurial agility and leverage</p>

Table II.
Theories of the firm
and the rise of
business services

has suggested that a property-rights theoretical framework can enhance our understanding of the concept of non-ownership. According to property-rights theory, ownership refers to a set of distinct rights (Furubotn and Pejovich, 1972): first, the right of the owner to use an asset (*ius usus*), for example using a machine for manufacturing; second, to change its form and substance (*ius abusus*), for example changing parts and components of the machine; third, to obtain income or other benefits (*ius fructus*), for example leasing the machine to a third party; and fourth, to transfer all residual rights through a sale or through rental agreements (*ius successionis*). In the case of non-ownership, these four rights are shared among multiple parties instead of just a single party (i.e. the owner) (Haase and Kleinaltenkamp, 2011; Moeller and Wittkowski, 2010). Parties holding property rights to an asset can gain value by exercising specific rights (Ely, 1995). More importantly, the nature and boundaries of a firm are defined by the bundle of ownership rights that a firm holds (Wirtz and Ehret, 2009).

In the light of business services, a shift can be noticed from services generated internally based on company owned assets toward the use of outsourcing, for example, contracting with external service providers (Ehret and Wirtz, 2010). This evolution of the services sector can be explained by a reduction of two types of costs.

First, measurement costs accrue when determining the value contribution of collaborating service providers to a finished output. If the output of an activity can easily be measured and enforced, service contracts tend to be the more efficient solution. If measurement costs are high, or measurement is unfeasible at all, the firm is better off by assuming ownership and managerial authority (Barzel, 1997). Thus, vertical integration is favored in early stages of a business model's life cycle in order to explore value mechanisms. Once critical value drivers are well understood and performance measures are easily established and maintained, the share of externally sourced services rises. That is, external sourcing of a service becomes a feasible option when managers are able to define performance indicators, establish measurement methods and enforce contract terms.

Second, governance costs can arise from investments in specialized assets such as a highly customized machine. In the hands of external service providers these assets become a powerful negotiation weapon, enabling them to hold up their clients and re-allocate profits (Ehret and Wirtz, 2010). For that reason US car companies used to insist on owning machines and equipment operated by their suppliers (Hart, 1995; Williamson, 1971). However, as soon as an asset has lost its unique character, external sourcing is favored if efficiency gains can be obtained.

This discussion makes it seem easy to determine which assets and processes should be owned or outsourced based on measurement and governance costs. However, it needs to be highlighted these are continua and there are plenty of potential sources for conflict in outsourcing relationships, and an extensive literature deals with the issues of commitment, trust and potential typologies of conflict handling (e.g., Ndubisi, 2011). For example, Ndubisi (2011) finds that integrating conflict handling, accommodating conflict handling and compromising conflict handling are directly related to trust and commitment. The author concludes that conflict handling techniques applied by outsourcers can lead directly to enhanced service provider commitment, as well as indirectly though its positive effect on trust.

In summary, the property-rights theory provides a theoretical explanation for the value contribution of business service providers. That is, they support their clients to economize on the costs of ownership. By outsourcing certain tasks to specialized service providers, manufacturing firms can concentrate on their core activities, improving

production and focussing on innovation. The important synergies between services and industry become more apparent as economies develop. As assets tend to lose their unique character in maturing industries, there is a greater incentive for firms to fragment production processes and to geographically delocalize them (cf. Nicita *et al.*, 2013). The guiding principle implied by the property-rights theory suggests that firms should assume ownership over specific assets and crucial, but hard to measure elements of the value creation process (Ehret and Wirtz, 2010). However, if this is not the case, external service providers are typically in a better position to maximize value creation and service outsourcing becomes efficient, leading to the rise of service economies.

The resource-based view (RBV): division of labor and the role of management

While property-rights theory ascribes management a rather passive role (e.g., supervision of employees, efficient allocation of rights), the resourced-based view highlights the goal of achieving growth as a driving factor of the division of labor between firms, emphasizing a more active role of management in shaping the position of a firm (Prahalad and Hamel, 1990; Wernerfelt, 1984, 1995). The RBV of the firm started with work of Penrose (1959) and Selznick (1957) with the notion of distinctive competencies. According to the RBV, the firm is as a collection of tangible and intangible resources, including all assets, capabilities, organizational processes, as well as information and knowledge. Those resources are bundles of different uses, and consequently, resource value is derived from the services they are applied to (Penrose, 1980). In the pursuit of growth, firms differentiate themselves by developing unique capabilities for the use of resources. This perspective makes management (in a broader sense) the decisive force that differentiates a firm and affects its growth.

In the context of business services, RBV provides important implications (Ehret and Wirtz, 2010; Wirtz and Ehret, 2009, 2013). A company's ability to exploit new entrepreneurial opportunities is constrained by its managerial capacity. In order to free scarce management capacity, the firm delegates certain management responsibilities and functions to external service providers. One vision based on the RBV is the intelligent enterprise that frees its management capacity for the pursuit of the most promising and profitable business opportunities, while delegating complementary activities to a network of external service providers (Quinn, 1992). Accordingly, companies should design their boundaries in order to focus on their core competencies. In summary, RBV contributes to explain the rising importance of business services by highlighting managerial capabilities as a crucial factor that limit a firm's growth opportunities. RBV thus provides a compelling argument to empower the management of client companies to focus on their most promising activities by releasing them from non-core responsibilities (Ehret and Wirtz, 2010).

The entrepreneurial theory of the firm: shifting boundaries of the firm

While both theories discussed so far provide explanations for the increasing demand of business services, these approaches have limitations with regard to the evolution of service economies. Property-rights theory highlights the efficiency criteria (i.e. measurement and governance costs) affecting boundaries of the firm. As such, it only provides a "snapshot" view, thereby neglecting dynamic factors that might explain shifts in ownership or new modes of division of labor between firms (Ehret and Wirtz, 2010). RBV focusses on the role of managerial capabilities in developing growth opportunities. While this approach is better equipped to deal with dynamic factors and change, it lacks a valid criterion for

defining boundaries of the firm within business networks (cf. Dyer and Singh, 1998; Ghosh and John, 1999). One research stream that is able to understand the evolution of business services is the entrepreneurial theory of the firm that unifies important elements of the property-rights theory and RBV from a dynamic perspective.

The entrepreneurial theory of the firm holds that entrepreneurship is a crucial element in explaining the nature and boundaries of the firm. For example, Jacobides and Winter (2005) argue that understanding the concept of entrepreneurship provides a better explanation of how and why firm and industry boundaries change. Broadly conceived, entrepreneurial action is concerned with the exploration and exploitation of profit opportunities arising from economic disequilibria (Kirzner, 1997; Shane and Venkataraman, 2000). Research in economics (e.g., Baumol, 1993; Kirzner, 1973; Lewin, 1999) and strategic management and organization (e.g., Alvarez and Barney, 2004; Foss *et al.*, 2007; Shane and Venkataraman, 2000) has highlighted how entrepreneurs shape organizations and how organizations support entrepreneurial action. For example, Kirzner (1973) argues that entrepreneurs are agile agents who identify opportunities ignored by other market participants and take action to profit from them. Entrepreneurs enhance the range of business opportunities in several ways: by mobilizing capital and knowledge, and by developing efficient routines by the means of business organization within a firm (Klein, 1999; Mises, 1949).

While everyone has some potential for acting entrepreneurial, economic organization can provide a substantial leverage for entrepreneurial activities. In a nutshell, entrepreneurs are the “lifeblood” directing firms to profitable opportunities, while firms provide entrepreneurs with capital, resources and an infrastructure that can enhance and even create entrepreneurial opportunities and their exploration (Foss *et al.*, 2007; Lewin, 1999; Sautet, 2000). For example, Jacobides (2005) demonstrates how vertical disintegration transformed a set of fairly similar, integrated players to a host of vertically co-specialized entities (e.g., mortgage brokers and bankers, asset holders, specialized service providers) that would coexist with extremely integrated firms. This process was partly driven by market entrants who quit their existing employers to serve the emerging needs of customers. It was also partly driven by “entrepreneurial participants who stood to win from the new, vertically co-specialized structure, such as technology vendors and infrastructure providers” (Jacobides and Winter, 2005, p. 4). That is, entrepreneurs understood the potential value from re-organizing the mortgage banking sector finding new ways of leveraging existing skills and improving the value chain.

This entrepreneurial perspective has decisive implications for role of ownership and property rights in shaping growth of service outsourcing and industry fragmentation, and the demand for business services. That is, ownership and property rights are tools for shaping and directing entrepreneurial processes like experimenting, exploring and exploiting business opportunities (Foss *et al.*, 2007). Firms use them in order to direct resources to expected higher valued uses, based on an entrepreneurial vision and a business model that contains a unique value proposition (Foss *et al.*, 2007). Equity ownership is the instrument to bear the risk entailed in entrepreneurial projects and thus is used to attract resources for the deployment of these projects (Knight, 1921). Therefore, ownership is shaping the scope of entrepreneurial projects that are feasible for a firm, subsequently setting its boundaries on resource markets. Consequently, resources and activities not related to firm-specific business opportunities should be sourced from external service providers. Firms can use business services to shift entrepreneurial uncertainty to an external provider who is better positioned to manage the contingencies of a certain activity, for example, market research, applying

specialized management methods or maintaining a resource like a machine (Wirtz and Ehret, 2009). With the help of business services, equity can be applied to the most promising elements of the value creation process. That is, each company can scale its activities in line with what it sees as its most promising business projects. As such, survival and growth of a firm rely on a continuous adaptation of its contractual boundaries to explore and exploit business opportunities (Foss *et al.*, 2007).

One distinctive contribution of the entrepreneurial theory of the firm is to highlight how the market process shapes the division of labor between companies (Kirzner, 1997). Companies strive continuously for new business opportunities in the face of commoditization and erosion of profits. Contracting and outsourcing are means to shift commoditized assets and activities to specialized service providers, and to get access to new opportunities created by new specialized external firms. GBS are designed to capture additional value through different types of arbitrage: first, labor arbitrage, e.g., savings from lower cost resources in different locations throughout the world; second, skill arbitrage, i.e. value derived from access to higher skilled labor (implied at lower costs/economically feasible costs); and third, pure arbitrage, i.e. value derived from the ability to shift work from one location to another to take advantage of shifts in the factors of production (Huber and Danino, 2012).

Generally, market opportunities for business services arise in the upstream areas of the value chain, supporting entrepreneurial downstream firms in their re-organization process (Wirtz and Ehret, 2013). For example, the advancements in information technology has created a myriad of different data formats and communication protocols. Many enterprises, even large ones, lack the capability to handle this problem appropriately, and face difficulties to cost effectively solve it in-house (Gillai and Kim, 2007). Business service providers can provide solutions reducing a firm's complexity and coordination problems across the supply chain, thus allowing the firm to free resources for new innovations.

While firms started with the outsourcing of routine operations, they are now in the position to use external service providers for almost any function, operation or asset class. As a result, firms are transforming into "intelligent enterprises" (Quinn, 1992) that can rent almost every conceivable activity or asset type as a service, while focussing on areas of un-served needs of customers or underused potential of resources. Globally organized service providers can even now "mix and match" the available service delivery capacities from different countries, both inside and outside their own group, combining them in a variety of ways, to deliver the required products and services to their customers (Ramioul and Kirschenhofer, 2005).

In summary, the contribution of the entrepreneurial theory of the firm allows to capture the dynamics of economic re-organization. New modes of division of labor result in new cost structures highlighted by property-rights theory, providing new frameworks for cultivating core competencies, emphasized by the RBV.

Summary, conclusions and implications

Over the past decades, the progressive liberalization of cross-border transactions, dramatic advances in ICTs, and improvements in transport logistics and services have provided firms with greater incentives to fragment production processes and to geographically delocalize them (Nicita *et al.*, 2013). These developments have led to the widespread outsourcing and offshoring of services we see today. That is, supporting and ancillary operations which were previously done in-house (intra-firm) are increasingly delegated to outside contractors (Eurostat, 2009; Woelfl, 2005). In recent years, outsourcing and offshoring have expanded to a range of knowledge-intensive business

services such as IT applications, finance and accounting, engineering, R&D, human resources and customer contact centers (Massini and Miozzo, 2010). Driven by the need to lower costs and access talent, companies now look beyond the boundaries of the developed world, even for high-end KTI services (Gereffi and Fernandez-Stark, 2010).

For a long time, economic theory suggested that the impressive productivity gains in manufacturing tend to be shifted to rather unproductive investments in consumer services (see Baumol's and Fuchs' attempts to interpret the productivity slowdown that occurred in developed countries; e.g., Baumol, 1967; Fuchs, 1977). However, these arguments are no longer tenable in the context of GBS. While business services were not very significant as a separate industry in the 1980s (Abramovsky *et al.*, 2004), the business service sector has grown rapidly in most of the OECD countries over the last decades. Statistically, KTI business services now show the strongest growth in terms of value added, economic productivity and employment of all sectors.

The non-ownership perspective of services is a new starting point that helps to explain why economies shift from goods-intensive to service-intensive modes of value creation. Theories of the firm provide a deeper understanding of the value resulting from the disintegration of value chains and the division of labor between organizations. The three approaches we discussed reveal fundamental value propositions for the evolution of GBS (Ehret and Wirtz, 2010; Wirtz and Ehret, 2009) (see Table II):

- The dramatic development of information technologies has significantly lowered transaction costs of non-ownership offerings, which are to a substantial extent information and measurement costs. Thus, from the perspective of property-rights theory, the rise of service trade following the adoption of e-business comes at little surprise. We can expect a similar effect from political initiatives that harmonize trade regimes and integrate trade regions.
- The rise of GBS further enhances opportunities for companies to broaden their resource base. Business services allow companies to focus on unique opportunities while tapping into the globally best and most efficient service providers. From a strategy perspective, service sourcing will be a key challenge in maintaining a viable resource base. From a provider perspective, the globalization of services opens up both a boon of opportunities as well as increased competition.
- To the extent that markets are being integrated, firms will face harder times to legitimize their existence. When virtually any business activity can be sourced around the globe, only firms that provide unique value will survive. At the same time, opportunities for service providers arise on the global level. As a result, firms need a fine radar to navigate opportunities and exploit them, as proposed by the entrepreneurial theory of the firm.

Future economic growth in developed as well as in developing countries will be driven by their competitiveness in services rather than in manufacturing. Furthermore, globally organized service providers will become an important catalyst for the continuous globalization of service economies. That is, the growing interconnectedness of companies, resulting from the trend of outsourcing business services, will accelerate the globalization process (Ramioul and Kirschenhofer, 2005). And, as products become more complex, value chains are likely to become longer, meaning that intermediaries (e.g., brokers, advisers, staff recruiters) in the supply chain of KTI business services become more important and more fragmented, perhaps based in different regions, countries and even continents (Huws and Dahlmann, 2004).

In conclusion, the service sector in general and business services in particular play an important role in raising the productivity of the manufacturing sector and other sectors in a globalized post-industrial economy. This applies especially to business services as they provide key intermediate inputs to manufacturing and other sectors, including ICT, business process outsourcing, logistics and supply chain services, finance, legal services, human resource recruitment and marketing services (e.g., Noland *et al.*, 2012; Wirtz and Ehret, 2013). Rather than handling tasks internally manufacturing firms may find it more cost effective to outsource these tasks and their related assets and people to firms that specialize in them. Thus, business services should no longer be viewed as peripheral activities supporting the manufacturing sector but as the backbone of our global post-industrial economies.

References

- Abramovsky, L., Griffith, R. and Sako, M. (2004), *Offshoring of Business Services and its Impact on the UK Economy*, Advanced Institute of Management Research, November, Great Britain.
- Adam, S. (2013), "Services set to take largest share of GDP in Asia", *Bloomberg*, September 3, available at: www.bloomberg.com/news/2013-09-03/asia-services-set-to-exceed-manufacturing-as-gdp-share.html (accessed September 19, 2013).
- Alvarez, S.A. and Barney, J. (2004), "Organizing rent generation and appropriation toward a theory of the entrepreneurial firm", *Journal of Business Venturing*, Vol. 19 No. 5, pp. 621-635.
- Andone, I.I. and Păvăloaia, V.D. (2010), "Outsourcing the business services", *Informatica Economică*, Vol. 14 No. 1, pp. 163-171.
- Bain and Company (2012), *A World Awash in Money. Capitol Trends Through 2020*, Bain & Company, New York, NY.
- Barzel, Y. (1997), *Economic Analysis of Property Rights*, 2nd ed., Cambridge University Press, Cambridge, MA.
- Baumol, W.J. (1967), "Macroeconomics of unbalanced growth: the anatomy of urban crisis", *American Economic Review*, Vol. 57 No. 3, pp. 415-427.
- Baumol, W.J. (1993), *Entrepreneurship, Management, and the Structure of Payoffs*, MIT Press, Cambridge, MA.
- BIS (2010), *Professional and Business Services: A 2020 Vision for Growth*, Department for Business, Innovation and Skills, London.
- Ciarli, T., Melicani, V. and Savona, M. (2012), "Knowledge dynamics, structural change and the geography of business services", *Journal of Economic Surveys*, Vol. 26 No. 3, pp. 445-467.
- Criscuolo, C. and Leaver, M. (2005), "Offshore outsourcing and productivity", paper presented at the OECD Workshop on the Globalisation of Production: Impacts on Employment, Productivity and Economic Growth, Paris, November 15-16.
- Deloitte (2013), *Global Business Services: Better Together*, Deloitte & Touche, Dublin.
- Dyer, J.H. and Singh, H. (1998), "The relational view: cooperative strategy and sources of interorganizational competitive advantage", *Academy of Management Review*, Vol. 23 No. 4, pp. 660-679.
- ECORYS (2012), "Study on business-related services", main report, Rotterdam, December.
- Ehret, M. and Wirtz, J. (2010), "Division of labour between firms: business-services, non-ownership-value and the rise of the service economy", *Service Science*, Vol. 2 No. 3, pp. 136-145.

- Ehret, M., Kashyap, V. and Wirtz, J. (2013), "Business models: impact on business markets and opportunities for marketing research", *Industrial Marketing Management*, Vol. 42 No. 5, pp. 649-655.
- Eichengreen, B. and Gupta, P. (2012), "The two waves of service sector growth", Working Paper Series No. 14968, National Bureau of Economic Research (NBER), Cambridge, MA, May.
- Ely, K.M. (1995), "Operating lease accounting and the market's assessment of equity risk", *Journal of Accounting Research*, Vol. 33 No. 2, pp. 397-415.
- EMCC (2005), "Offshore outsourcing of business services: four case examples", European Foundation for the Improvement of Living and Working Conditions, Dublin, available at: www.metiseurope.eu/content/pdf/n7/3_emcc.pdf (accessed July 17, 2015).
- Eurostat (2008), *NACE Rev. 2. Statistical Classification of Economic Activities in the European Community*, Eurostat European Commission, Luxembourg.
- Eurostat (2009), *European Business: Facts and Figures*, Eurostat European Commission, Luxembourg.
- Eurostat (2013), "Business services statistics – NACE Rev. 1.1", Data from January 2009, available at: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Business_services_statistics_-_NACE_Rev._1.1 (accessed September 20, 2013).
- Fersht, P., Filippone, T., Aird, C. and Sappenfield, D. (2011), *The Evolution of Global Business Services: Enhancing the Benefits of Shared Services and Outsourcing*, HfS Research, July, Cambridge, MA.
- Foss, K., Foss, N.J., Klein, P., Klein, P.G. and Klein, S.K. (2007), "The entrepreneurial organization of heterogeneous capital", *Journal of Management Studies*, Vol. 44 No. 7, pp. 1165-1186.
- Fuchs, V.R. (1977), "The service industries and US economic growth since World War II", NBER Working Paper Series No. 211, National Bureau of Economic Research, Cambridge, MA, pp. 1-32.
- Furubotn, E.G. and Pejovich, S. (1972), "Property rights and economic theory: a survey of recent literature", *Journal of Economic Literature*, Vol. 10 No. 4, pp. 1137-1163.
- Gereffi, G. and Fernandez-Stark, K. (2010), *The Offshore Services Global Value Chain*, Center on Globalization, Governance & Competitiveness, Duke University, March, Durham, NC.
- Ghosh, M. and John, G. (1999), "Governance value analysis and marketing strategy", *Journal of Marketing*, Vol. 63 No. 4, pp. 131-145.
- Gillai, B. and Kim, T. (2007), *Driving Business Value Through B2B Outsourcing. Improving Business Performance, Trading Partner Satisfaction, and B2B Capabilities*, Stanford Global Supply Chain Management Forum, Stanford, CA, October.
- Gonzales, F., Bradford Jensen, J., Kim, Y. and Kyvik Nordås, H. (2012), "Globalisation of services and jobs", in Lippoldt, D. (Ed.), *Policy Priorities for International Trade and Jobs*, OECD Publishing, e-publication, Paris, pp. 175-192, available at: www.oecd.org/site/tadicite/50258009.pdf (accessed on July 17, 2015).
- González Mieres, C., Ángel López Sánchez, J. and Leticia Santos, V.M. (2012), "Internal marketing, innovation and performance in business services firms: the role of organizational unlearning", *International Journal of Management*, Vol. 29 No. 4, pp. 403-429.
- Grossman, G. and Rossi-Hansberg, E. (2008), "Trading tasks: a simple model of offshoring", *The American Economic Review*, Vol. 98 No. 5, pp. 1978-1997.
- Haase, M. and Kleinaltenkamp, M. (2011), "Property rights design and market process: implications for market theory, marketing theory, and S-D logic", *Journal of Macromarketing*, Vol. 31 No. 2, pp. 148-159.

-
- Hart, O. (1995), *Firms, Contracts, and Financial Structure*, Clarendon Press, Oxford.
- Heracleous, L. and Wirtz, J. (2010), "Singapore Airlines' balancing act – Asia's premier carrier successfully executes a dual strategy: it offers world-class service and is a cost leader", *Harvard Business Review*, Vol. 88 Nos 7/8, pp. 145-149.
- Heracleous, L. and Wirtz, J. (2012), "Strategy and organisation at Singapore Airlines: achieving sustainable advantage through dual strategy", in Inderwildi, O. and King, Sir D. (Eds), *Energy, Transport, & the Environment*, Chapter 26, Springer, London, pp. 479-493.
- Huber, B. and Danino, S. (2012), *Global Business Services: Taking Business Support Functions to the Next Level*, Information Services Group, Stamford, CT.
- Huws, U. and Dahlmann, S. (2004), *Outsourcing of ICT and Related Services in the EU. A Status Report*, European Foundation for the Improvement of Living and Working Conditions, Dublin.
- Jacobides, M.G. (2005), "Industry change through vertical disintegration: how and why markets emerged in mortgage banking", *Academy of Management Journal*, Vol. 48 No. 3, pp. 465-498.
- Jacobides, M.G. and Winter, S.G. (2005), "Entrepreneurship and firm boundaries: the theory of 'a' firm", *Journal of Management Studies*, Vol. 44 No. 7, pp. 1213-1241.
- Jensen, J.B. (2009), *Globalization and Business Services: A Growth Opportunity?*, The Georgetown Center for Business & Public Policy, Washington, DC, November.
- Jensen, J.B. (2011), *Global Trade in Services: Fear, Facts, and Offshoring*, Peterson Institute for International Economics, Washington, DC.
- Jensen, J.B. and Kletzer, L.G. (2010), "Measuring tradable services and the task content of offshorable services jobs", in Abraham, K.G., Spletzer, J.R. and Harper, M. (Eds), *Labor in the New Economy*, University of Chicago Press, Chicago, IL, pp. 1-28.
- Kirzner, I.M. (1973), *Competition and Entrepreneurship*, The University of Chicago Press, Chicago, IL.
- Kirzner, I.M. (1997), "Entrepreneurial discovery and the competitive market process: an Austrian approach", *Journal of Economic Literature*, Vol. 35 No. 1, pp. 60-85.
- Klein, P.G. (1999), "Entrepreneurship and corporate governance", *The Quarterly Journal of Austrian Economics*, Vol. 2 No. 2, pp. 19-42.
- Knight, F. (1921), *Risk, Uncertainty and Profit*, Houghton Mifflin, Boston, MA.
- KPMG (2013), "KPMG sourcing advisory 2Q13 global pulse survey", KPMG International, July.
- Lewin, P. (1999), *Capital in Disequilibrium: The Role of Capital in a Changing World*, Routledge, London.
- Lovelock, C.H. and Gummesson, E. (2004), "Whither services marketing? In search of a new paradigm and fresh perspectives", *Journal of Service Research*, Vol. 7 No. 1, pp. 20-41.
- Lovelock, C.H. and Wirtz, J. (2011), *Services Marketing: People, Technology, Strategy*, 7th ed., Prentice Hall, Upper Saddle River, NJ.
- Mann, C.L. (2005), "Offshore outsourcing and the globalization of US services: why now, how important, and what policy implications?", in Bergsten, C.F. (Ed.), *Foreign Economic Policy for the Next Decade*, Institute for International Economics, Washington, DC, pp. 281-312.
- Massini, S. and Miozzo, M. (2010), "Outsourcing and offshoring of business services: challenges to theory, management and geography of Innovation", Working Paper No. 604, Manchester Business School, Manchester.
- Mises, L.V. (1949), *Human Action: A Treatise on Economics*, 3rd rev. ed., Henry Regnery, Chicago, IL.

- Moeller, S. and Wittkowski, K. (2010), "The burdens of ownership: reasons for preferring renting", *Managing Service Quality*, Vol. 20 No. 2, pp. 176-191.
- Ndubisi, N.O. (2011), "Conflict handling, trust and commitment in outsourcing relationship: a Chinese and Indian study", *Industrial Marketing Management*, Vol. 40 No. 1, pp. 109-117.
- Nicita, A., Ognivtsev, V. and Shirotori, M. (2013), "Global supply chain: trade and economic policies for developing countries", *Policy Issues in International Trade and Commodities Study Series No. 55*, UNCTAD, Geneva.
- Noland, M., Park, D. and Estrada, G.B. (2012), "Developing the services sector as engine of growth for Asia: an overview", Working Paper Nos 12/18, Peterson Institute for International Economics, Washington, DC, October.
- NSF (2012), *Science and Engineering Indicators 2012, Chapter 6: Industry, Technology, and the Global Marketplace*, National Science Foundation, Arlington, VA.
- OECD (2007), "Globalisation and structural adjustment", Summary Report of the Study on Globalisation and Innovation in the Business Services Sector, Paris.
- Oulton, N. (2001), "Must the growth rate decline? Baumol's unbalanced growth revisited", *Oxford Economic Papers*, Vol. 53 No. 4, pp. 605-627.
- Penrose, E. (1959), *The Theory of the Growth of the Firm*, Basil Blackwell, Oxford.
- Penrose, E. (1980), *The Theory of the Growth of the Firm*, 2nd ed., Basil Blackwell, Oxford.
- Prahalad, C.K. and Hamel, G. (1990), "The core competence of the corporation", *Harvard Business Review*, Vol. 68 No. 3, pp. 79-91.
- Quinn, J.B. (1992), *The Intelligent Enterprise: A Knowledge and Service-Based Paradigm for Industry*, The Free Press, New York, NY.
- Ramioul, M. and Kirschenhofer, S. (2005), "Offshore outsourcing of business services", European Foundation for the Improvement of Living and Working Conditions, May, Dublin, available at: www.eurofound.europa.eu/emcc/content/source/tn05001a.htm (accessed October 2, 2013).
- Rasmussen, C. and Johnson, M. (2012), "Jobs supported by exports 1993-2011", Manufacturing and Services Economics Briefs No. 8, International Trade Administration, October, Washington, DC.
- Rifkin, J. (2000), *The Age of Access: How the Shift from Ownership to Access is Transforming Capitalism*, Putnam, New York, NY.
- Rubalcaba-Bermejo, L. (2004), "The globalisation of business services and the competitiveness of European ICT services", *XIV Conference RESER Working Paper, September 23-24, Castres*, pp. 459-504.
- Sako, M. (2005), "Outsourcing and offshoring: key trends and issues", paper presented at Global Meetings of the Emerging Markets Forum from Emerging Markets Forum, Emerging Markets Forum, Washington, DC, November, available at: <http://brie.berkeley.edu/conf/Sako.pdf> (accessed September 25, 2013).
- Sautet, F. (2000), *An Entrepreneurial Theory of the Firm*, Routledge, London.
- Selznick, P. (1957), *Leadership in Administration: A Sociological Interpretation*, Harper & Row, New York, NY.
- Shane, S. and Venkataraman, S. (2000), "The promise of entrepreneurship as a field of research", *Academy of Management Review*, Vol. 25 No. 1, pp. 217-226.
- Wernerfelt, B. (1984), "A resource-based view of the firm", *Strategic Management Journal*, Vol. 5 No. 2, pp. 171-180.

-
- Wernerfelt, B. (1995), "The resource-based view of the firm: ten years after", *Strategic Management Journal*, Vol. 16 No. 3, pp. 171-174.
- Williamson, O.E. (1971), "The vertical integration of production: market failure considerations", *A.E.R. Papers and Proceedings*, Vol. 61 No. 2, pp. 112-123.
- Wirtz, J. (2000), "Growth of the service sector in Asia", *Singapore Management Review*, Vol. 22 No. 2, pp. 37-54.
- Wirtz, J. and Ehret, M. (2009), "Creative restructuring: how business services drive economic evolution", *European Business Review*, Vol. 21 No. 4, pp. 380-394.
- Wirtz, J. and Ehret, M. (2013), "Service-based business models: transforming businesses, industries and economies", in Fisk, R.P., Russell-Bennet, R. and Harris, L.C. (Eds), *Serving Customers: Global Services Marketing Perspectives*, Tilde University Press, Melbourne, pp. 28-46.
- Wittkowski, K., Moeller, S. and Wirtz, J. (2013), "Firms' intentions to use nonownership services", *Journal of Service Research*, Vol. 16 No. 2, pp. 171-185.
- Woelfl, A. (2005), "The service economy in OECD countries", STI Working Paper No. 2005/3, OECD, Paris.
- WTO (2010), *Measuring Trade in Services*, A Training Module Produced by WTO/OMC, World Trade Organization, Geneva.
- WTO (2012), *International Trade Statistics 2012*, World Trade Organization, Geneva.
- Zeithaml, V.A., Parasuraman, A. and Berry, L.L. (1985), "Problems and strategies in services marketing", *Journal of Marketing*, Vol. 49 No. 2, pp. 33-46.
- Zlomek, E. (2013), "Why hire an MBA when you can rent one?", *Bloomberg Businessweek*, 24 October, pp. 60-61.

(The Appendix follows overleaf.)

Country/Region	Agriculture				Industry				Services			
	1980	1990	2000	2010	1980	1990	2000	2010	1980	1990	2000	2010
Argentina	6.4	8.1	5.3	11.4	41.2	36.0	29.4	34.2	52.4	55.9	65.2	54.4
Australia	7.9	4.9	3.5	2.3	37.8	31.2	26.9	19.8	54.3	63.9	69.6	77.9
Brazil	11.0	8.1	5.6	5.3	43.8	38.7	27.7	28.1	45.2	53.2	66.7	66.6
Canada	4.3	2.9	2.3	1.9 ^b	36.9	31.3	33.2	32.0 ^b	58.8	65.8	64.5	66.1 ^b
China	30.2	27.1	15.1	10.1	48.2	41.3	45.9	46.6	21.6	31.5	39.0	43.4
France	4.9	4.2	2.8	1.8 ^a	31.8	27.1	22.9	19.1 ^a	63.3	68.7	74.2	79.2 ^a
Germany	2.4	1.5	1.3	0.9	41.1	37.3	30.5	27.9	56.5	61.2	68.2	71.2
India	35.4	29.0	23.1	18	24.3	26.5	26.1	27.6	40.3	44.5	50.8	54.4
Italy	6.0	3.5	2.8	1.9	38.1	32.0	28.2	25.3	55.9	64.5	69.0	72.8
Japan	3.1	2.1	1.5	1.2	39.0	37.5	31.1	27.5	57.9	60.4	67.4	71.4
Russia	na	16.6	6.4	4.0	na	48.4	37.9	35.4	na	35.0	55.6	60.6
Singapore	1.6	0.3	0.1	0.0	36.2	31.9	34.5	27.5	62.3	67.8	65.4	72.5
Spain	7.2	5.6	4.4	2.7	36.6	33.6	29.3	26.1	56.2	60.8	66.3	71.2
Turkey	26.5	18.1	11.3	9.6	23.8	32.2	31.5	26.9	49.7	49.8	57.2	63.4
UK	2.1	1.8	1.0	0.7	40.7	33.8	27.3	21.6	57.2	64.4	71.7	77.7
USA	2.9	2.1	1.2	1.2	33.5	27.9	23.4	19.8	63.6	70.1	75.4	79.0
European Union	4.6	3.8	2.4	1.6	37.2	33.3	28.2	25.6	58.2	63.0	69.4	72.8
OECD members	4.4	3.2	2.0	1.5	35.8	31.8	27.3	24.2	59.8	65.0	70.6	74.3
Low income	37.7	37.5	34.0	26.8	19.3	19.4	20.7	23.7	43.1	43.3	44.9	49.5
Middle income	22.3	19.3	12.6	9.8	38.8	36.0	36.2	37.1	39.0	44.6	51.2	53.0
High income	4.0	3.2	2.0	1.4	36.6	32.6	27.8	24.6	59.4	64.2	70.2	74.0
World	7.3	6.2	4.0	3.1	36.9	33.1	29.3	26.9	55.8	60.7	66.7	69.9

Notes: na, not available. ^a2009 data; ^b2008 data

Source: Authors' calculations based on data from the World Bank. If you would like to use the underlying data or the table, please contact Sven Tuzovic

Table A1.
Sectoral
developments of the
world economy:
value added in
percent of GDP

Appendix 2

Country/Region	Agriculture				Industry				Services			
	1985	1995	2005	2011	1985	1995	2005	2011	1985	1995	2005	2011
Argentina	0.3 ^d	0.6	1.1	1.2	30.9 ^d	27.0	23.5	23.8	56.6 ^d	72.0	75.1	74.4
Australia	6.2	5.0	3.6	3.3 ^b	27.4	22.8	21.3	21.1 ^b	66.5	72.2	75.1	75.5 ^b
Brazil	28.6	26.1	20.5	17.0 ^b	22.1	19.6	21.4	22.1 ^b	49.3	54.3	57.9	60.7 ^b
Canada	5.1	4.1	2.7	2.4 ^c	25.4	22.0	22.0	21.5 ^c	69.5	74.0	75.3	76.5 ^c
China	62.4	52.2	44.8	36.7 ^a	20.8	23.0	23.8	28.7 ^a	16.8	24.8	31.4	34.6 ^a
France	7.1	4.9	3.6	2.9	31.6	26.9	23.7	22.1	61.3	68.1	72.3	74.6
Germany	na	3.2	2.4	1.6	na	36.0	29.8	28.3	na	60.8	67.8	70.1
India	na	60.4 ^e	55.8	51.1 ^a	na	15.7 ^e	19.0	22.4 ^a	na	23.7 ^e	25.2	26.6 ^a
Italy	11.0	6.6	4.2	3.7	33.0	33.7	30.8	28.5	56.0	59.8	65.0	67.8
Japan	8.8	5.7	4.4	3.7 ^a	34.9	33.6	27.9	25.3 ^a	56.0	60.4	66.4	69.7 ^a
Russian Fed.	na	15.7	10.2	9.7 ^b	na	34.0	29.8	27.9 ^b	na	50.0	60.0	62.3 ^b
Singapore	0.7	0.2	1.1	1.1 ^b	35.2	31.0	21.7	21.8 ^b	64.1	68.8	77.3	77.1 ^b
Spain	18.3	9.0	5.3	4.2	31.7	30.2	29.7	21.8	49.8	60.8	65.0	74.0
Turkey	45.0	43.4	29.5	24.2	20.0	22.3	24.8	26.5	35.0	34.3	45.8	49.4
UK	2.5	2.0	1.3	1.2	31.2	27.3	22.2	19.1	64.9	70.2	76.3	79.0
USA	3.1	2.9	1.6	1.6 ^a	28.3	24.3	20.6	16.7 ^a	68.6	72.9	77.8	81.2 ^a
World	na	40.4 ^e	35.1	30.4 ^a	na	22.7 ^e	21.9	24.4 ^a	na	36.3 ^e	42.9	44.9 ^a

Notes: na, not available. ^a2010 data; ^b2009 data; ^c2008 data; ^d1984 data; ^e1994 data

Source: Authors' calculations based on data from the World Bank. If you would like to use the underlying data or the table, please contact Sven Tuzovic

Table AII.
Sectoral
developments of the
world economy:
employment in
percent of total
employment

About the authors

Jochen Wirtz is a Professor of Marketing at the National University of Singapore (NUS). He was the founding Director of the UCLA – NUS Executive MBA (ranked number 4 globally in the *Financial Times* 2015 EMBA rankings) from 2003 to 2014. Dr Wirtz has published over 200 academic articles, book chapters and industry reports. His over ten books include *Services Marketing: People, Technology, Strategy* (Prentice Hall, 7th ed., 2011, co-authored with Christopher Lovelock), *Essentials of Services Marketing* (Prentice Hall, 2nd ed., 2012) and *Flying High in a Competitive Industry: Secrets of the World's Leading Airline* (McGraw Hill, 2009). For free downloads of his recent work and selected book chapters see www.JochenWirtz.com. Professor Jochen Wirtz is the corresponding author and can be contacted at: bizwirtz@nus.edu.sg

Sven Tuzovic is Senior Lecturer at the School of Advertising, Marketing and Public Relations, QUT Business School, Queensland University of Technology, Brisbane, Queensland. Previously, he was Associate Professor of Marketing at Pacific Lutheran University in Tacoma, WA. He has been Visiting Professor at Griffith University (2014), Murray State University (2006/07) and the University of New Orleans (2005/06). Dr Tuzovic has published in several marketing journals including the *Journal of Service Management*, the *Journal of Services Marketing* and *Managing Service Quality*. Currently he serves as Associate Editor of the *Journal of Services Marketing*. Please contact Sven at sven.tuzovic@qut.edu.au if you would like to receive any of the tables, appendices or charts for your research.

Michael Ehret is a Reader in Technology Management at the Nottingham Trent University. His research focusses on business and technology marketing. He has published in leading academic journals including the *Journal of Marketing*, *Journal of Business Research* and *Industrial Marketing Management*. For further information, please see the web site www.michael-ehret.com

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com