

## **The Characteristics of International Business-to-business Services: The 4C framework**

*Kristin Brandl, University of Victoria*  
*Peter Ørberg Jensen, Copenhagen Business School*  
*Patrik Ström, University of Gothenburg*  
*Andrew Jones, City University of London*

### *Abstract*

With the increasing importance of business-to-business (b-2-b) and knowledge intensive services in the contemporary global business environment, it is imperative to understand the characteristics of international service activities. However, research on international services is fragmented, inconclusive, and at times even contradictory among a variety of academic fields. Thus, we develop a unified conceptual framework that identifies the characteristics of international b-2-b services. We develop this framework by reviewing international business, economic geography, urban-regional science and service management literature, resulting in the identification of three major challenges of the fields related to the definition of the services, their level of analysis, and the impact of institutional environments on the services. These challenges are the foundation for the identification of four interconnected service characteristic components, i.e. *connectivity*, *configuration*, *collaboration*, and *creation of value* evident in b-2-b service activities. Using the 4C framework allows conceptualizing the impact of international environments on the services. We illustrate this impact with an example related to public policy with high relevance and impact on regional developments. The integrative research approach allows contributing to international business, economic geography, and international service management literature and provides insights for public policy.

Key words: international services, business-to-business services, economic geography, international business, service management

## INTRODUCTION

According to the World Bank (2016), global value added services constitute to around 70% of world GDP and services account for 70-80% of the GDP of advanced economies. Moreover, many manufacturing firms have begun ‘packaging’ their physical goods together with a range of complementing services and this *servitization* of activities is generally not accounted for in these figures (e.g. Daniels and Bryson, 2002; Oliva and Kallenberg, 2002). Thus, the implications of services on the world economy are vast and significantly impact developed as well as developing countries (Jones and Ström, 2018). Especially business-to-business and more knowledge intensive business services have become evident in the global economy, predominantly due to growing global technology and knowledge dependencies. Thus, we focus our attention on these business-to-business (b-2-b) high knowledge intensive services as they reflect the most important as well as most challenging services in the contemporary global business environment, i.e. they reflect an “accumulation, creation, or dissemination of knowledge for the purpose of developing a customized service [...] to satisfy the client’s needs” (Bettencourt, Ostrom, Brown and Roundtree, 2002:101). It is also a sector that has risen to become key in facilitating economic growth, market integration and trade across economic geographies at different levels (ADB, 2012; EU HLG, 2014; Shingal et al., 2018)

These services are progressively geographically spread and relocated around the globe (Manning, Massini, and Lewin, 2008; Contractor, Kumar, Kundu and Pedersen, 2010). Based on the geographic dispersion of the services, the way the services are produced and managed changes (Ström and Wahlqvist, 2010; Brandl, Mol, and Petersen, 2017; Mol and Brandl, 2018) and the location where they are geographically dispersed to impacts the services and vice versa (Ström and Nelson, 2010; Jensen and Pedersen, 2011;). Although a variety of research on international services exists in international business (e.g. Merchant and Gaur, 2008; Jensen and Petersen; 2014), economic geography (e.g. Knight and Wojcik, 2017) and service

management (e.g. Wojcik, Knight, and Pazitka, 2017), research on international services is still comparably fragmented and not conclusive, and at times even contradictory (Blagoeva, 2016).

As a result, there is an absence of generalizability from past work as well as an absence of overall and unifying constructs and concepts that help understanding the special features of services in general and international services in particular. We use the term *international services* to denote both, the internationalization of services (process dimension) and the management of these services (organizational dimension) at a service activity level, going beyond the firm level perspective. This lack of knowledge represents a paradox for scholars, policy makers, and managers who are studying or working in the international service field. Thus, this study develops *a unified conceptual framework that is aimed at identifying the characteristics of international b-2-b services*.

In order to get an overview of the different fields that studied international services and to provide a unified framework, we start by reviewing a variety of academic fields. In particular, we review the fields of economic geography, urban-regional science, international business, and service management. We take an integrative approach and identify the challenges of all fields with regards to international services. We identify three main challenges, i.e. 1) challenges with defining services in general, which is building the foundation for international services, 2) the level of analysis that is needed to study international services, and 3) the policies and institutional environments related to services in general and international services in particular.

Resulting from this analysis, we develop a conceptual framework that is aimed at enabling a better identification of service characteristics in an international context. The framework consists of four interconnected components of service characteristics, i.e. the *connectivity* of service actors to the environment, the *configuration* of service activities within organizational

set-ups, the dyadic *collaborative* interaction between service actors, such as the client and service provider, and the *created value* by the services. Once established, we discuss this 4C framework in an international context and identify each component individually and in combination related to international business environments. We provide an illustrative case related to public policy to support this discussion and exemplify international services.

The main contribution of this study is a unifying theoretical framework that aims to provide guidance for the study of international services across different fields and clearly anchor it in the spatial domain through focusing on activity. Due to the fragmented and inconclusive research that exists on the topic, the objective is to provide a framework that is able to stipulate more unifying, conclusive, and consistent knowledge on international services. The interdisciplinary research approach, combining international business, economic geography, urban-regional science and service management research in the development of the framework, allows us to do so. Moreover, the four service characteristic components contribute to the academic research issue of fragmented service definitions and provide a generalizable characterization. With the focus on service activities rather than the firm-level, we are able to provide a more contemporary view on service activities inspired by the micro-foundational perspective in management research (Abell, Felin, and Foss, 2008). Finally, the integration of economic geography and international business perspectives with service management research allows us to take stock of the influence of the institutional environment on international services, which is an overlooked aspect in the latter literature stream.

## **LITERATURE REVIEW**

Research on services and especially b-2-b services can be found across various academic fields in which predominantly firms that produce the services are studied and not the service activity

(e.g. Alvesson, 2000; Hitt, Bierman, Shimizu and Kochhar, 2001; von Nordenflycht, 2010). This focus is caused due to the intangible nature of services and the fact that they often are produced and consumed at an instance, which challenges the identification and measurement of services and thus academic analysis, i.e. they are characterized to be perishable, heterogeneous, and inseparable from their source of origin (Parasuraman, Zeithaml, and Berry, 1985). Moreover, with increased connection of services and products, i.e. *servitization* (Neely et al, 2011), issues related to conceptual framing and value-capture has become even more complex (Daniels and Bryson, 2002) and challenges are enhanced when adding an international business context.

Thus, research on the topic is in dire need and international service research developed concomitantly to the transformation of economies, i.e. the increasing contribution of service activities to GDP and employment shares (e.g. Dunning, 1989; Enderwick, 1989; Daniels, 1993). Scholars in the fields of international business, economic geography, urban-regional science and service management studied the underlying reasons for these structural shifts in the economy (e.g. Ström and Wahlqvist, 2010) and its impact on firm management, strategy, and international business activities (e.g. Jensen, 2009; Brandl et al., 2018; Brandl, 2019). Although fragmented and scattered, three fundamental challenges in relation to international service management research become evident when analyzing this literature, 1) challenges with the definition of the services, 2) a restricted focus of the level of analysis of the services, and 3) the impact of policy and institutional environments of the service. The spatial dimension cuts across these challenges in relation to advanced or mature economies, regional differences and institutional settings.

### **Service definition**

There are several ways of service configurations, based on parameters such as international producer or consumer of the service (e.g. business or private), the level of skills and knowledge required in the production of the service (high vs. low level of knowledge, standardization vs. customization) and how/for whom value is created. Main issue is that services do not have clearly defined inputs and outputs such as in the production of goods. Thus, various bodies of literature designed ways and concepts to classify and measure services based on different indicators (see Silvestro, Fitzgerald, Johnston, and Voss, 1992; Illeris, 1996). For example, in the operations research field, Chase (1978; 1981) distinguishes services according to the client contact needed in the service production process, i.e. the time in order to measure the degree in which the client is in direct contact with the service provider relative to the total time the provider needs to produce the service.

Other researchers take a less quantifiable approach to the activities and distinguish between the degrees of customization (high and low) (Grönroos, 1978; Maister and Lovelock, 1982) or knowledge-intensity (Alvesson, 2001). Then again others focus on people or equipment (Thomas, 1975), service outputs, i.e. processes or products (Johnston and Morris, 1985), or combine processes, people skills, and materials (Goldstein et al. 2002). Each of these attempts leads to some difficulties in clearly defining service characteristics as the degree and intensity of each of these attempts can vary significantly challenging the idea of developing one unified way of characterizing services. For instance, services have varying grades of customization, can mix process and product outputs or are based on peoples and equipment simultaneously. Moreover, most services are based on some kind of knowledge and any evaluation of knowledge ‘intensity’ is often easily contested (Alvesson, 2001). Moreover, in the contemporary business environment there is also a perpetual design and development of new services which makes it difficult to generalize services in the long run and predict developments in the future (e.g. Hermelin and Rusten, 2007; Gustafsson and Bowen, 2017).

Consequently, academic studies on services needed to define the services or often had to be accompanied by a (detailed) discussion on the characteristics of the services. Thus, there is a need to easier identify and unify service characteristics, i.e. including insights on the interaction of actors in the service production process or the outcome and created value of the services. This inherent complexity has also proven to render challenges for creating effective policy across sub-industries, or stipulating regulatory frameworks attached to different spatial and functional levels (e.g. EU HLG, 2014).

### **Level of analysis**

Previous research tried to overcome challenges with identifying and characterizing service activities by categorizing service firms and the connected industry they belong to rather than the service activity. Industrial classification systems allow for some possible categorization based on agreed frameworks within national accounts, international trade, or regional economic developments, for example the nomenclature of territorial units for statistics (NUTS) or the World Trade Organization (WTO). These schemes have been developed to catch the magnitude of the service related economy, but also for regulatory purposes.

Moreover, rather than focusing on the service activity, the firm has provided a possible level of analysis. Thus, there is an extensive research discussion on the firms that provide services (e.g. Starbuck, 1992) also in an international context (e.g. Erramilli and Rao, 1993; Ball, Lindsay and Rose, 2008; Rammal and Rose, 2014). However, Starbuck (1992) for example, recognizes the challenges to distinguish service firms, such as professional and knowledge intensive firms. These challenges are based on challenges to differentiate knowledge as physical and social capital, routine, and organizational culture; while knowledge intensive services can also be produced in-house, professional services imply that the services are

produced by external professional service firms (PSFs) that have an ethical code to serve the client without self-interest, the professions cohesion, collegial enforcement of standards, and autonomy of professionals (Starbuck, 1992). These classifications of b-2-b service firms requires the identification of all service activities within a firm. According to Løwendahl (2005), a firm belongs to the category of these PSFs only if the firm's majority of service offerings are professional services. This perspective is challenging considering the variety of service activities with different knowledge intensities a firm can offer. Thus, the distinction of different services based on knowledge content has gained in importance for reasons of better conceptual understandings and easier categorization (e.g. Daniels, 1993; Dicken, 2015). Especially also if related to better catching the increasingly complex interrelation between services and manufacturing activities (and; Jones and Wren, 2016; Castellani, et al., 2016).

Considering these challenges and that the service activity is creating value, the outer boundaries of the firm should arguably be of secondary focus in service research. However, it is also problematic to identify a service and for example distinguish it from a product, in the case of *servitization*. The capturing of value has also become more difficult to identify, especially in cross-border activities (Daniels and Bryson, 2002). Thus, the level of analysis of services is challenging as neither firm levels nor value adding levels provide a full understanding of the activities. A clear characterization of the services should include an organizational configuration as well as value creating perspective.

### **Institutional environment**

The environment that surrounds services or service firms is significantly impacting the way the services are produced and used and the firms that do so. Moreover, the impact is also reversed as the services and firms can purposefully and accidentally influence environments and

locations (Ström and Wahlqvist, 2010; Jones and Wren, 2016;). For example, the importance of the IT sector in Bangalore influences the development of the area, also with regards to governmental policies, and India in general (Parthasarathy and Aoyama, 2006). Moreover, policy making can be significantly influenced by lobbying activities of service firms (Woll, 2008).

Especially the institutional environment in certain areas or regions, advance or hinder service activities. For example, service firms cluster around institutional environments especially when knowledge intensive services are produced (Keeble and Nachum, 2001). With the importance of individuals and professionals as well as knowledge sources in the production of services, labor laws and regulations related to intellectual property protection standards are significantly influencing factors. Thus, regional policy is needed to facilitate competitive environments that allow for innovative service productions (Doloreux and Shearmor, 2012). Thereby, supra-national policy and regulation also can provide a strong platform to regulate service related institutional environments. Especially narrow attempts to facilitate service sector related policies and regulations might be misleading, especially when service and manufacturing activities become interwoven and tightly connected to industrial change (Jones and Wren, 2016).

These arguments outline the importance of the location choice for services and service firms, but also the impact that these have on the location where they are situated. The institutional environment place thereby a significant role as it provides a supportive or unsupportive environment for the services. A characterization of service needs to take these connections into account as they influence the services and vice versa.

## **DEFINING CENTRAL SERVICE CHARACTERISTICS - THE 4C FRAMEWORK**

In order to overcome the outlined challenges, we propose a variety of components that allow characterizing b-2-b services. We identify four main components of b-2-b service characteristics; 1) the *connectivity* of service actors to the environment, 2) the *configuration* of service activities within organizational set-ups, 3) the dyadic *collaborative* interaction between service actors such as the client and service provider, and 4) the *creation of value* as objectives of the service. We propose that these components apply to the majority of b-2-b services, but acknowledge that additional components can be added to the framework based on their relevance to certain service activities.

Overall, the proposed framework responds to the outlined challenges, i.e., defining services, the level of analysis, and the institutional environment are reflected in the four components since they transcend different b-2-b services. For example, the creation of value is strongly connected to the outcome of the services and as such to the definition of the service. Moreover, the configuration of service activities within organizations relates strongly to the challenges in identifying the level of analysis in service research. Similarly, the collaboration of actors connects strongest to the industrial dynamics related to the service and the institutional set up it connects to. Each component is responding to the outlined challenges in varying degrees of importance.

Moreover, each of these components are interconnected and dependent on each other, i.e. the creation of value is connected to the connection between the client and the service provider. Without an efficient interaction between the two actors, there is limited creation of value for either of the actors. Taking such a systems approach to the 4C framework, emphasizes the importance of the relationship and mutual influence of each of the four components in the framework. Inspired by contingency theory (Drazin and Van de Ven, 1985) and the notions of strategic and organizational fit (e.g. Zajac et al., 2000), an important assumption of the

framework is that the extent to which the 4Cs are aligned, or conflict, influences the service activity. We visualize these relationships in figure 1 and discuss each component.

**\*\*\*\* Insert Figure 1 here \*\*\*\***

### **Connectivity**

Connectivity refers to the network between service actors (clients/providers) in local environments. Local clusters are spatial manifestations of the connectivity between actors where tacit knowledge and connectivity through global pipelines are vital for creating competitive advantages (Gertler, 2003; Bathelt, Malmberg and Maskell, 2004; Wojcik, Knight, and Pazitka, 2017). It is linked to the local institutional environment, which builds up to how knowledge is present in different clusters on a national scale. The service-dominant logic literature (e.g. Vargo and Lusch, 2011) has been on the forefront of service research that acknowledged the institutional environment. The literature argues that in order to fully understand service activities and the interactions related to them, the (formal and informal) institutions that are evident in a country and location context are responsible for the coordination and constrains between actors (Vargo and Lusch, 2014). The environment around the service activity, i.e. economic and social, impact the governance of the service and the service activities on various formal and informal institutional levels.

Studies have shown the importance of co-location of service activities or the close proximity to infrastructure such as airports in order to facilities business relationships together with agglomeration effects such as knowledge transfer and access to client networks. It can be difficult to exactly pinpoint the underlying reasons for the will to collocate with competitions and clients, a locational attraction that was referred to as just 'being there' (Gertler, 2003). This

has rendered specific growth of b-2-b services in metropolitan areas both in advanced and emerging economies (Alvstam et al., 2016). Service activities related to finance and other forms of high-end consulting activities build on locational competitive advantage to connect with global production networks where services play an ever increasingly important part of value creation (Lai, 2004). Despite more services being provided and facilitated using internet and telecommunication, the need for co-location in metropolitan regions is not diminishing (Wentrup et al., 2019)

### **Configuration**

The configuration of service activities refers to the interface between the nature of the service activity and the related organizational set-up. While there has been extensive research (Hernández and Pedersen, 2017, for a review) on the configuration of a firm's value chain (Porter, 1985), we consider the configuration element from a more narrow perspective that specifically focuses on service activities. This includes, first, the inputs needed to execute the service activity, second, the nature of the service activities, and lastly, how these inputs are organized in the work process in order to execute the service activity (Stabell and Fjeldstad, 1998; Jensen and Petersen, 2014;).

The services consist of tacit knowledge that needs to be accumulated, created and disseminated in the production process by professional and knowledgeable experts. This dependency also leads to socially constructed, context specific, and ambiguous dimensions of the services (Starbuck, 1992; Tsoukas and Vladimirou 2001; Alvesson, 2004). The most critical input in services is the human capital, mostly staff with completed tertiary education coupled with robust professional experience (e.g. Hatch and Dyer, 2004; Jensen, 2009). To characterize the work process in the execution of activities in services, we follow Stabell and Fjeldstad (1998)

and use Thompson's (1967) notion of *intensive technology*. The central feature is that the interactions in the work process follow what Thompson (1967) describe as *reciprocal task interdependence*. This implies that the problem-solving process is iterative, as perceptions of the nature of the problem and adequate solutions may change during the execution of the task. In addition, the outcomes are to a high degree customized and designed on a case-by-case basis. This also means that there is a high level of uncertainty about how best to deliver intended outcomes and a mutual dependency among members of the workforce, regardless of their spatial locations. It follows that the work process must be carefully managed, and continuously coordinated and integrated among the employees. This high degree of task interconnectedness makes it difficult to distinguish clear interfaces and boundaries between tasks within the service production process. Due to the iterative nature of the work, there is no clearly defined boundary as to when tasks in a service production process start and end (for more recent applications, see e.g. Brandl et al., 2018; Kumar et al., 2009). Fixed sets of clear distinguishable sequential activities that enable to produce a service in large numbers through standardization, routinization and generalization is evident (Larsson and Bowen, 1989; Løwendahl et al., 2001;) also in co-located services.

### **Collaboration**

The collaboration in service activities refers to the dyadic interaction between the client and the service provider. This knowledge specialization and expertise in b-2-b services is instigating a high degree of information asymmetry between the client and the service provider generated through human skills, management capabilities, and knowledge stocks of experts (Quinn, 1992; Prahalad and Hamel, 1990). These experts are the most important resource for the firms and infer a certain degree of authority. As services are customized, interactions

between client and service provider firms and their actors are required (Maister and Lovelock, 1982; Maister, 1993; Roth and Menor, 2003; Edvardsson, Gustafsson, and Roos, 2005; Neely, 2008;;). According to Løwendahl et al. (2001), the degree of customization in services is dependent on the services offered. A high degree of customization also imply that the concepts of generalization and standardization are challenged and that each service is individualized, disallowing routines when producing the services (Maister 1993; Løwendahl et al. 2001). Due to this customization the services are dependent on the active participation by the client in the production process (Brandl, 2019). Within the interaction between the client and the service provider, knowledge is transferred from a sender to a receiver or co-created by the combined application of knowledge sources (Faulconbridge, 2006).

The intensity of this interaction is dependent on service characteristics, the problem that needs to be solved and the capabilities of service providers (Mills, Chase, and Margulies, 1983) and clients (Larsson and Bowen, 1989) to accumulate, create and disseminate knowledge and the nature of knowledge. For example, if the service is based on high tacit knowledge dimensions, interactions are more intense as the transfer and creation of knowledge is sticky (Szulanski, 1996). Chase (1978; 1981) claims that the higher the customer contact, the lower the possibility to operate on peak efficiencies, but according to Mills et al. (1983), the more the client is involved in the production process, the higher the productivity gains and value creation. This controversy highlights that a balance between client co-production and efficiency seeking is needed and that the more cohesive and the less fragmented the client and service provider the better, as co-location is counteracting this fragmentation (Howden and Pressey, 2008). This complexity comes as a result of solutions being provided to clients, rather that specific services (Daniels, 2000).

## **Creation of value**

The creation of value in service activities refers to the creation of monetary and/or non-monetary benefits for the client and the service provider. As already discussed, b-2-b service activities request the interaction of clients and service providers, predominantly to satisfy needs or solve problems of clients or reduce uncertainties (Wittreich 1966; Normann and Ramirez, 1998;). This value creation logic is based on the information asymmetry between a client and service provide, which is leading to the service request by the client. Value is created for the client if the problem is solved or the firm's need is satisfied, which is also an indicator for service quality (Parasuraman et al., 1985). However, etymologically value creation infers simultaneously value capturing and consumption, i.e. the creation of value implies also that the created value is recognized and appropriated (Vargo and Lusch, 2004). Just the creation of value does not solve the client's problem, it needs to be captured and appropriated in order to provide economic rents (Priem, 2007). Thus, the creation and appropriation of value are interconnected.

Moreover, the perception of value, is often subjective and thus, it can be challenging to depict what value is created through service activities and which firm benefits from the created value. For example, cultural or organizational/administrative differences (Ravald and Grönroos, 1996) between the client and service provider can influence perceptions of the created value. The development of Asian service economies clearly shows the inherent complexity of how value is developed and priced (Jones and Ström, 2018). Monetary terms of value could overcome some challenges with subjectivity (Anderson and Narus, 1999), i.e. increased revenues as a result of the service activities, but these are outcome variables and highly dependent on the correct appropriation of the created value. Moreover, the identification of non-monetary terms of value, i.e. the documentation of competitive gains, gained organizational competencies, gained knowledge, or managerial time spent (Ravald and

Grönroos, 1996) are also alternatives. Yet again, these are also dependent on the appropriation of the created value and the understanding of the service outcome.

Despite the focus on the client, the service provider also benefits from the service activity in a direct, i.e. monetary reimbursement, and indirect manner, i.e. additional knowledge gained (Grönroos, 2011). Consequently and considering the activity rather than the firm level, value creation is dependent on the co-creation of value by a client and service provider (Grönroos, 2011; Prahalad and Ramaswamy, 2004). Thus, the alignment and clear understanding between the client and service provider on the value creation within the service activity is of major concern. The value creation and the implications on trade and investment is also a key determinant of configurations of global value chains (Daniels, 2000; Shingal et al., 2018). This understanding benefits from similar backgrounds and expectations on the created value, which implies co-location is beneficial for the client and service provider.

### **TAKING THE 4C FRAMEWORK INTERNATIONAL**

This developed “4C” framework has no specified location, but can be considered in a national context, i.e. connectivity refers to the service’s connectivity to local environment. However, in the contemporary global business environment and as already outlined, international services gain in importance and are a significant contributor to a countries economy and development. Thus, the components from the domestic to the international level will need to be considered in an international business context. In order to illustrate an international 4C framework, we introduce the European Union’s Directive on Services. This illustration allows identifying how the international environment and policy-level factors impact services.

### **The international 4C framework**

First, *connectivity* refers to the spatial organization of activities in the service value chain and the linkages between the nodes in the system (e.g. Beugelsdijk et al., 2010; Beugelsdijk and Mudambi, 2013; Cano-Kollman et al., 2016). The central strategic question concerns the choice of location for service activities, either at the country-level, or at the level of regions, cities, and clusters. The supporting drivers are the establishment of channels and linkages to interconnected global clusters. These connections are about the combination of knowledge in different clusters on the global scale and the utilization of the respective knowledge pools and centers of excellence to build competitive advantages (Li and Bathelt, 2017). Using contextual specifications can strengthen the possibility to capitalize on the know-how that is anchored at different locations and hence drives importance of using and scaling competence within the wider economic geography.

Second, *configuration* and its methods and work processes for problem solving relates to the international dispersion of activities and influence the ways of transferring knowledge, also between international locations. Geographic dispersion adds complexities to the configuration of the service activity, in view of the challenges related to knowledge-transfer and –sharing (e.g. Kogut and Zander, 1993), especially for the kind of idiosyncratic, “sticky” knowledge (e.g. Szulanski, 1996, 2000) often associated with customized problem solving in business services.

Third, while *collaboration* refers to the relation and exchange between the client and the service provider, the international dimension of collaboration concerns how the international separation between actors influence collaboration. In this respect, we may extend the view on collaboration from the inter-firm relationship between client and service provider to also include a firm-internal dimension. Although the formal relationship is different in firm-internal

compared with externalized collaboration, both organizational modes are characterized by a separation between the provision of the service activity and its use. For both organizational modes, the question of collaboration in an international context related to literatures on strategic alliances (e.g. Das and Tang, 2000), boundary-spanners and team organization in an international context (e.g. Schotter et al., 2017), and international service production (Brandl et al., 2018; Jensen, 2012). Within service industries this is often overcome by connection to a wider understanding of practice (Jones and Murphy, 2011).

Fourth, at the international level the creation of value concerns the firm's ability to execute the service activity efficiently and effectively under the influence of distance-creating factors that are amplified when the service activity execution goes across national boundaries (e.g. Ghemawat, 2011, Stringfellow et al., 2008; Porter, 1986). As mentioned above, the creation of value is largely subjective and influenced by cultural, administrative, and organizational difference between client and service provide. The view on value creation is therefore challenged to overcome such variations in perceptions and interpretations of service quality (Ravald and Grönroos, 1996; Jones and Ström, 2018).

### **The 4C framework and international politics – an example**

In January 2004, Frits Bolkenstein, then Commissioner for the EU's Internal Market, proposed the *Services in the Internal Market Directive*, based on the political rational of the success seen in the Single Internal Market for goods. The Directive was mandated by the European Council in 2000 when the Council asked the European Commission to initiate "as strategy for the removal of barriers to services" (European Council, 2000, para 17). With this mandate, the main objective of the Services Directive is to create one large and unified European market for trade in services which essentially requires EU member states to screen their legislation to

check whether the resulting paperwork imposed on firms is necessary and, if not, remove it or at least reduce it (Barnard, 2008).

While this sounds simple and commonsensical, the Services Directive nevertheless turned out to be one of the most controversial legislative proposals in the history of the EU (Jensen and Nedergaard, 2012). On one side, liberal proponents, and the European Commission, stressed the significant potential gains in economic growth and employment from an open and unified European market for services. A study prepared for the European Commission showed a potential for 600,000 additional jobs in services, an increase in total value added in services of 33 billion EUR, in addition to lower prices and rising output (Copenhagen Economics, 2005). On the other side, left-wing politicians and trade unions opposed the Directive, arguing that the free movement of services (the “country-of-origin” principle, rooted in the regulatory principle of mutual recognition in trade introduced in the EU earlier in the 1990s) would de facto undermine workers’ rights and employment conditions. According to the opponents, the Directive would lead to a race-to-the-bottom where workers across Europe unwillingly would become engaged in a downward competition and spiral (Jensen and Nedergaard, 2012).

Finally, after a politically heated process, which involved large manifestations in capitols across Europe where thousands took to the streets, the Services Directive was approved in a modified version by the European Parliament and Council in December 2006 (Directive 2006/123/EC). Subsequently, the Directive was implemented in national legislation in EU member states by 2009.

More recently, an *EU High-Level Group on Business Services* was established by the European Commission to take stock on EU’s internal market for services and the objective of creating one unified European services market. The Group concluded that progress toward a European market for services has been achieved but that intra-EU barriers for international service still

exist. Notably, the European market for b-2-b services still suffers from lack of proper information to firms, excessive bureaucracy and fragmented legislation, barriers to foreign entry, especially for SMEs, and taxation and insurance schemes that inhibit cross-border trade in services (EU HLG, 2014). Overall, this still leaves a European market for services which is fragmented and which creates challenges for business and policy-makers alike (EU HLG, 2014).

We use the example of the European Union's Service Directive to exemplify how an exogenous factor directly influences service characteristic components in the 4C framework. This impact is driven from an impact on the *connectivity* component of a 4C, which is then further indirectly influencing the three remaining components. This direct and indirect impacts also shows the relationship and mutual dependency of the components in the 4C framework.

The problems to establish a unifying environment among all EU member countries leads to the continues fragmentation of institutional environments. This fragmentation directly impacts the *connectivity* component of the 4C framework. The continued existence of barriers, limits the range of potentially accessible locations for business operations and the possibility to internationally disperse service activities due to increasing institutional diversity. Limitations in the locational access make the access to clusters more difficult, and vice versa, hinder the establishment and growth of linkages between local clusters and the international business environment. It also challenges service activities due to inconsistent institutional environments that require knowledge of different local institutions. These implications are visible on several geographic levels across the union.

As a result of these impacts on the *connectivity* component, *configuration* is indirectly and negatively impacted, especially the problem-solving work processes across borders. The advantages related to the synergies of spatially dispersed resources and capabilities will be

more difficult to explore and exploit when *connectivity* is impeded. For the execution of services activities, the transfer of tacit knowledge will remain underexplored, in part due to the lack of common standards in a fragmented European market. Without unification, nationally configured problem-solving will continue to be the most dominant organizational form for the execution of service activities.

These implications are similarly indirectly impacting the *collaboration* between actors across borders. Cross-border collaboration is recognized as a challenge in the academic literature, due to a variety of distance-creating factors, such as cultural, administrative, time-zone, cognitive, and language differences (Ghemawat, 2007; Stringfellow et al., 2008, Nooteboom, 2000), as well as knowledge “stickiness” (Szulanski, 1996). The more fragmented the actors, the higher the likelihood that challenges arise in international service activities. In order to do cross-border collaborations successfully, strong capabilities embedded in boundary spanners, team leaders, and project teams are needed (e.g. Schotter et al., 2017). Moreover, advances in communication and information technology can reduce these challenges.

Finally, efficient and effective execution of business service activities in order to *create value* requires close interaction between the client and the service provider. Thus, the changes of connectivity, indirectly also impact the creation of value, since is it not supportive of the need for reducing the distance-creating factors between the actors. The absence of a unified and integrated European market for services enhances such challenges. Furthermore, this implies making the transition from producing services with lower value-added toward more advanced service activities with a higher value-added more difficult. Indirectly, the HLG report talks of the hampering effect on international competitive advantage of EU based firms operating in other mature or emerging markets. The possibility for SMEs within different service sub-sectors to grow and internationalize will be limited.

To sum up, this example shows how the political-institutional environment can influence the internationalization of markets for services. The case of the EU Services Directive shows there are powerful, influential factors that go beyond “pure” business concerns in the field of international services and across the horizontal business structure. These include, first, that various stakeholders, including the wider public, can be mobilized and exert strong pressure. Second, there are strongly opposed perceptions of conflict and trade-offs between economic efficiency gains and social concerns. Third, there is a conflict between short-term protection of status quo and potential gains in the long term. In the current international business environment, where a general pressure toward increasing economic nationalism exist, such experiences hold lessons for the future international services. Fourth, the components in the 4C framework are directly and indirectly influenced by factors in the political-institutional environment, in this case via the continued presence of national-level barriers to international b-2-b services in Europe. *Connectivity* is directly influenced by the European political environment for international b-2-b services. *Configuration, collaboration* and *creation of value* are all indirectly affected through the impact of barriers to trade and internationalization on *connectivity*.

## CONCLUDING DISCUSSION

We set out to develop a unified conceptual framework in order to identify the characteristics of international b-2-b services. We reviewed international service literatures in the fields of international business, economic geography, urban-regional science and service management and identified three research challenges that form the foundation for the development of a framework, i.e. the difficulties in defining services, the level of analysis, and the impact of the institutional environment on service activities. Based on this discussion, we identify a range of

central service characteristic components that individually and in combination impact international services. The resulting 4C framework based on the service characteristics components of connectivity, configuration, collaboration, and creation of value, provides a response to these research challenges and proposes a unified way of studying services in general and in particular in an international context across the different academic fields. We exemplify how the 4C framework is applicable to an international context, especially related to public policy. The 4C framework is novel and can be applied in a variety of research fields or to policy and practice.

### **Conceptual implications**

The study develops a framework that can arguable be applied to a variety of service activities. The four derived components, i.e. connectivity, configuration, collaboration and creation reflect the majority of services and can be complemented with additional components depending on the different service activities. The framework is grounded in three challenges that were identified by a literature review of service research in the international business, service management, and economic geography or urban-regional science fields. The challenges are related to literatures inconsistently defined services, to distinguish levels of analysis and go beyond the firm level, and to acknowledge the importance and differences of national institutional environments of the service activity location. In a growing service economy this paper is contributing to each of these challenges with a framework that is designed to overcome the challenges and provide clarity in the definition and characterization of services. It also outlines the importance and focus on the service level by rejecting a firm or industry level focus and in taking the framework international, it enables to identify how the service characteristics are impacted by international contexts and institutional differences. Thus, the first contribution of the paper is the interdisciplinary focus that is applied and that allows identifying general challenges related to international services. There have been increasingly louder calls for

interdisciplinary research, i.e. in the economic geography and international business field (e.g. Buckley and Ghauri, 2004; Beugelsdijk, McCann, and Mudambi, 2010).

The literature has struggled to identify a consistent and universal definition of services and service characteristics. The varying degrees of knowledge intensity, input and output dimensions, customer contact etc. make it difficult to uniformly characterize service activities. We used these established literatures and designed a framework that aims at facilitating a more unified identification and characterization of service activities. The framework is based on four interactive service characteristic components, i.e. connectivity, configuration, collaboration and creation of value. We argue that these components are the fundamental components of any service activity, which can be complemented by additional components based on varying service activities. Thus, we argue that the framework can be used in all research fields to characterize services at least with regards to the four main components of service characteristics.

The challenges related to the level of analysis are closely connected to the challenges in defining service activities. With the lack and difficulties in identifying unified service definitions and characterization, academic literature reverted to firm level analysis and industry standards for unified measurements. However, with changing business environments and *servitization*, including the limited detail possible when focusing on firm and industry levels, such a perspective is outdated and imperfect. As we are not taking an industry and firm level perspective, we have a much more micro-foundational view on the implications of these factors on the services (Coleman, 1994; Abell, Felin and Foss, 2008). Thus, a focus on service activities is more appropriate and provides better insights on the contemporary global business environment irrespective of sub-sector or spatial location. We contribute to literature with an activity-perspective and diverge from a firm level focus, i.e. we are able to provide detailed information on the services rather than the firm as a whole with a clear spatial anchoring. We

respond to calls for more activity-based research in general and in the international services domain in particular (e.g. Johnson, Melin and Whittington, 2003; Jensen and Petersen, 2012; Brandl, 2019).

Mainly international business, economic geography and urban-regional science literatures discussed the service environments and how they might impact different service activities (see e.g. Lindahl and Beyers, 1999; Wood, 2006; Brandl et al., 2017; Mol and Brandl, 2018;). However, implications of the institutional environment and their impact on service activities is often not the focus of academic research (Jones and Ström, 2018). With the international impact on the 4C framework, especially on each of the four components independently and in relation to each other, we are able to provide more insights on the implications of environmental factors on service activities. Thus, this perspective and findings go beyond general international business literature that historically focused on the internationalization process of service firms and the spatial dynamics focus of economic geography and regional studies literature, thus allowing for more detailed insights for both literature streams.

### **Implications for policy and practice**

We consider the example of the EU Services Directive in the 2004-2006 period as a harbinger of the more recent backlash against globalization that has accelerated with UK's Brexit, the Trump presidency, and the rise of right-wing nationalism in Europe and the US. Taking the Ricardian view on international trade as the overall point of departure, and using the proposed 4C framework to understand the more specific impact of barriers in the services domain, the main implication is that the process and magnitude of international services is negatively influenced by economic nationalism. It is paradoxical, since several service sub-sectors were forerunners in globalization taking advantage of technological advancement and trade

liberalization. This implies that countries, including their firms and labor forces, will not reap the potential benefits resulting from a more open international regime for international services. This also poses policy challenges for emerging market economies that are in the midst of a process where services are becoming a more important part of the economy in general, and how configuration of global value chains are increasing in importance for future regional competitiveness (e.g. ADB, 2012; Jones and Ström, 2018). However, while the opening and internationalization of markets for services bring opportunities for societies, firms, and employees, the EU Services Directive example as well the events of recent years show that the scale, scope and pace of globalization also raise opposition from parts of the political spectrum and affected social groups among the electorate.

From these past and contemporary events, we may derive at least three challenging questions for policy-makers and firms. First, economic globalization in the services domain entails a reallocation of power, position and jobs in the international service value chain. Globalization of the markets for services is a gradual process and going too far and too fast creates resistance among electorates. Due to reasons related to social stability and economic growth, it is in the interest of government to acknowledge and address these concerns. Second, governments should consider which policies they realistically could apply to become, or remain, attractive destinations for international services while at the same time avoiding the marginalization and alienation of service workers in regional economic transformations. Thirdly, international firms must acknowledge that they are actors in a political environment. This implies that they need to consider what strategies and operational measures vis-à-vis the host countries they could apply to be accepted as legitimate actors in the host country environment. Previous research on institutionalization theory, which addresses the question of the legitimacy of the international firm, (Kostova and Zaheer, 1999; Westney, 1993) is relevant in this respect.

## REFERENCES

- ADB (2012) Outlook 2012 Update: Services and Asia's Future Growth, Manila: ADB.
- Alvesson, M. (2000) Social identity and the problem of loyalty in knowledge-intensive companies, *Journal of management studies*, 37(8), 1101-1124.
- Alvesson, M. (2001) Knowledge work: Ambiguity, image and identity, *Human relations*, 54(7), 863-886.
- Alvesson, M. (2004) *Knowledge work and knowledge-intensive firms*, OUP Oxford.
- Alvstam, C. G., Ström, P., and Wentrup, R. (2016) Heterogeneous economic space in a global archipelago: an economic-geography perspective of emerging markets, in (Eds) Merchant, H. *Handbook of Contemporary Research in Emerging Markets*. Edward Elgar Publishing, London.
- Anderson, J. C., and Narus, J. A. (1999) *Business Market Management: Understanding, Creating, and Delivering Value*, Upper Saddle River, New Jersey.
- Ball, D. A., Lindsay, V. J., and Rose, E. L. (2008) Rethinking the paradigm of service internationalisation: less resource-intensive market entry modes for information-intensive soft services, *Management international review*, 48(4), 413-431.
- Barnard, C. (2008) Unravelling the services directive, *Common Market Law Review*, 9(2004): 323–394.
- Bathelt, H., and Glückler, J. (2003) Toward a relational economic geography, *Journal of economic geography*, 3(2), 117-144.
- Bathelt, H., Malmberg, A., and Maskell, P. (2004) Clusters and knowledge: local buzz, global pipelines and the process of knowledge creation, *Progress in human geography*, 28(1), 31-56.
- Bettencourt, L. A., Ostrom, A. L., Brown, S. W., and Roundtree, R. I. (2002) Client co-production in knowledge-intensive business services, *California management review*, 44(4), 100-128.
- Beugelsdijk, S., McCann, P., and Mudambi, R. (2010) Introduction: Place, space and organization—economic geography and the multinational enterprise, *Journal of Economic Geography*, 10(4): 485–493.
- Beugelsdijk, S., Mudambi, R. (2013) MNEs as border-crossing multi-location enterprises: The role of discontinuities in geographic space, *Journal of International Business Studies*, 44: 413-426.
- Blagoeva, D.H. (2016) *The Internationalisation of Service Firms: The Impact of Value Creation on the Internationalisation Strategy of Firms*, PhD Thesis. Copenhagen Business School, Frederiksberg.
- Brandl, K. (2017) Direct and indirect value creation in offshored knowledge-intensive services, *International Journal of Physical Distribution and Logistics Management*, 47(2/3), 137-155.
- Brandl, K. (2019) The impact of offshoring on knowledge-intensive services: A study of activities in service production processes. *Global Strategy Journal*, forthcoming.

- Brandl, K., Jensen, P. D. Ø., and Lind, M. J. (2018) Advanced service offshore outsourcing: Exploring the determinants of capability development in emerging market firms, *Global Strategy Journal*, 8(2): 324-350.
- Brandl, K., Mol, M.J. and Petersen, B. (2017) The reconfiguration of service production systems in response to offshoring: A practice theory perspective, *International Journal of Operations & Production Management*, 37(9), 1246-1264.
- Buckley, P. J., and Ghauri, P. N. (2004) Globalisation, economic geography and the strategy of multinational enterprises, *Journal of International Business Studies*, 35(2), 81-98.
- Bryson, J. R., and Daniels, P. W. (Eds.). (2015) *Handbook of service business: Management, marketing, innovation and internationalisation*, Edward Elgar Publishing.
- Cano-Kollmann, M., Cantwell, J., Hannigan, T. J., Mudambi, R., and Song, J. (2016) Knowledge connectivity: An agenda for innovation research in international business, *Journal of International Business Studies* 47, 255-262.
- Chase, R. B. (1978) Where does the customer fit in a service operation?, *Harvard business review*, 56(6), 137-142.
- Chase, R. B. (1981) The customer contact approach to services: theoretical bases and practical extensions, *Operations research*, 29(4), 698-706.
- Contractor, F.J., Kumar, V., Kundu, S.K. and Pedersen, T. (2010) Reconceptualizing the firm in a world of outsourcing and offshoring: The organizational and geographical relocation of high-value company functions, *Journal of Management Studies*, 47(8), 1417-1433.
- Daniels, P. W. (1993) *Service industries in the world economy*, Blackwell.
- Daniels, P.W. (2000) Export of Services or Servicing Exports? *Geografiska Annaler* 82B, pp. 1–15.
- Daniels, P. W., and Bryson, J. R. (2002) Manufacturing services and servicing manufacturing: knowledge-based cities and changing forms of production, *Urban Studies*, 39(5-6), 977-991.
- Dicken, P. (2015) *Global Shift* (7th ed.), London, SAGE.
- Doloreux, D., and Shearmur, R. (2011) Collaboration, information and the geography of innovation in knowledge intensive business services, *Journal of Economic Geography*, 12(1), 79-105.
- Drazin, R., and Van de Ven, A. H. (1985) Alternative forms of fit in contingency theory, *Administrative science quarterly*, 514-539.
- Dunning, J. H. (1989) The study of international business: A plea for a more interdisciplinary approach, *Journal of International Business Studies*, 411-436.
- Edvardsson, B., Gustafsson, A., and Roos, I. (2005) Service portraits in service research: a critical review, *International journal of service industry management*, 16(1), 107-121.
- Enderwick, P. (1989) Multinational corporate restructuring and international competitiveness, *California Management Review*, 32(1), 44-58.

- Erramilli, M. K., and Rao, C. P. (1993) Service firms' international entry-mode choice: A modified transaction-cost analysis approach, *Journal of Marketing*, 57(3), 19-38.
- European Union High-Level Group [EU HLG] (2014) *High-level group on business services. Final Report*. April.
- Gertler, M. S. (2003) Tacit knowledge and the economic geography of context, or the undefinable tacitness of being (there), *Journal of economic geography*, 3(1), 75-99.
- Ghemawat, P. (2007) Managing differences: The central challenge of global strategy, *Harvard Business Review* 85, no. 3, 58-68.
- Goldstein, S. M., Johnston, R., Duffy, J., and Rao, J. (2002) The service concept: the missing link in service design research?, *Journal of Operations management*, 20(2), 121-134.
- Grönroos, C. (1978) A service-orientated approach to marketing of services, *European Journal of marketing*, 12(8), 588-601.
- Grönroos, C. (2011) Value co-creation in service logic: A critical analysis, *Marketing Theory*, 11(3), 279-301.
- Gustafsson, A., and Bowen, D. E. (2017) The curious case of interdisciplinary research deficiency: Cause or symptom of what truly ails us?, *Journal of Business Research*, 212-218.
- Hatch, N. W., and Dyer, J. H. (2004) Human capital and learning as a source of sustainable competitive advantage, *Strategic management journal*, 25(12), 1155-1178.
- Hätönen, J. and Eriksson, T. (2009) 30+ years of research and practice of outsourcing—Exploring the past and anticipating the future, *Journal of international Management*, 15(2), 142-155.
- Hernández, V., and Pedersen, T. (2017) Global value chain configuration: A review and research agenda, *BRQ Business Research Quarterly*, 20(2): 137–150.
- Hitt, M. A., Bierman, L., Shimizu, K., and Kochhar, R. (2001) Direct and moderating effects of human capital on strategy and performance in professional service firms: A resource-based perspective, *Academy of Management journal*, 44(1), 13-28.
- Howden, C., and Pressey, A. D. (2008) Customer value creation in professional service relationships: the case of credence goods, *The Service Industries Journal*, 28(6), 789-812.
- Illeris, S. (1996) *The Service Economy: A Geographical Approach*. Chichester, Wiley.
- Jensen, M. D., and Nedergaard, P. (2012) From 'Frankenstein' to 'toothless vampire'? Explaining the watering down of the services directive, *Journal of European Public Policy*, 19(6), 844–862.
- Jensen, P. D. Ø. (2009) A learning perspective on the offshoring of advanced services, *Journal of International Management*, 15(2), 181–193.
- Jensen, P. D. Ø., and Petersen, B. (2014) Value creation logics and internationalization of service firms, *International Marketing Review*, 31(6), 557-575.
- Jensen, P.D.Ø. and Pedersen, T. (2011) The economic geography of offshoring: the fit between activities and local context, *Journal of Management Studies*, 48(2), 352-372.

- Johnston, B., and Morris, B. (1985) Monitoring and control in service operations, *International Journal of Operations and Production Management*, 5(1), 32-38.
- Jones, A., and Murphy, J. T. (2011) Theorizing practice in economic geography: Foundations, challenges, and possibilities, *Progress in human geography*, 35(3), 366-392.
- Jones, A., and Ström, P. (2018) Asian varieties of service capitalism?, *Geoforum*, 90, 119-129.
- Jones, J., and Wren, C. (2016) Does service FDI locate differently to manufacturing FDI? A regional analysis for Great Britain, *Regional Studies*, 50(12), 1980-1994.
- Keeble, D., and Nachum, L. (2002) Why do business service firms cluster? Small consultancies, clustering and decentralization in London and southern England, *Transactions of the Institute of British Geographers*, 27(1), 67-90.
- Knight, E. and Wojcik, D. (2017) Geographical linkages in the financial services industry: a dialogue with organizational studies, *Regional Studies*, 51(1), 1-12.
- Kumar, K., Fenema, P. C. Van, and von Glinow, M. A. (2009) Offshoring and the global distribution of work: Implications for task interdependence theory and practice, *Journal of International Business Studies*, 40(4): 642–667.
- Lai, T. L. (2004) Service quality and perceived value's impact on satisfaction, intention and usage of short message service (SMS), *Information Systems Frontiers*, 6(4), 353-368.
- Larsson, R., and Bowen, D. E. (1989) Organization and customer: managing design and coordination of services, *Academy of Management Review*, 14(2), 213-233.
- Li, P., and Bathelt, H. (2017) Location strategy in cluster networks. *Journal of International Business Studies*, 1-23.
- Lindahl, D. P., and Beyers, W. B. (1999) The creation of competitive advantage by producer service establishments, *Economic geography*, 75(1), 1-20.
- Løwendahl, B. (2005) *Strategic management of professional service firms*, Copenhagen Business School Press DK.
- Løwendahl, B. R., Revang, Ø., and Fosstenløkken, S. M. (2001) Knowledge and value creation in professional service firms: A framework for analysis, *Human relations*, 54(7), 911-931.
- Maister, D. (1993) *Managing the professional service firm*, Free Press, Simon and Schuster, New York
- Maister, D. H., and Lovelock, C. H. (1982) Managing facilitator services, *Sloan Management Review (pre-1986)*, 23(4), 19.
- Manning, S., Lewin, A.Y. and Massini, S. (2008) The globalization of innovation: a dynamic perspective on offshoring, *Academy of Management Perspectives*, 22(3), 35-54.
- Merchant, H., and Gaur, A. (2008) Opening the 'non-manufacturing' envelope: The next big enterprise for international business research, *Management International Review*, 48(4), 379-396.
- Mills, P. K., Chase, R. B., and Margulies, N. (1983) Motivating the client/employee system as a service production strategy, *Academy of management Review*, 8(2), 301-310.

- Mol, M. J., & Brandl, K. (2018) Bridging what we know: The effect of cognitive distance on knowledge-intensive business services produced offshore, *International Business Review*, 27(3), 669-677.
- Mudambi, R., (2008) Location, control and innovation in knowledge-intensive industries *Journal of economic Geography*, 8(5), 699-725.
- Neely, A. (2008) Exploring the financial consequences of the servitization of manufacturing, *Operations management research*, 1(2), 103-118.
- Neely, A., Benedettini, O., and Visnjic, I. (2011). The servitization of manufacturing: Further evidence. In *18th European operations management association conference* (Vol. 1) July.
- Nooteboom, B. (2000) Learning by interaction: absorptive capacity, cognitive distance and governance, *Journal of Management and Governance*, 4(1-2), 69-92.
- Oliva, R. and Kallenberg, R. (2003) Managing the transition from products to services, *International journal of service industry management*, 14(2), 160-172.
- Parasuraman, A., Zeithaml, V. A., and Berry, L. L. (1985). A conceptual model of service quality and its implications for future research, *Journal of Marketing*, 49(4), 41-50.
- Parthasarathy, B., and Aoyama, Y. (2006) From software services to R&D services: local entrepreneurship in the software industry in Bangalore, India, *Environment and Planning A*, 38(7), 1269-1285.
- Porter, M. E. (1985) *Competitive Advantage: Creating and Sustaining Superior Performance*, New York: The Free Press; York, NY..
- Prahalad, C. K., and Hamel, G. (1990) The core competence of the corporation, *Harvard Business Review*, 68(3): 79-91.
- Prahalad, C. K., and Ramaswamy, V. (2004) Co-creation experiences: The next practice in value creation, *Journal of interactive marketing*, 18(3), 5-14.
- Priem, R. L. (2007) A consumer perspective on value creation, *Academy of Management Review*, 32(1), 219-235.
- Quinn, J. B. (1992) *Intelligent Enterprise: A Knowledge and Service Based Paradigm for Industry*. Free Press, Simon and Schuster, New York.
- Ramírez, R., and Normann, R. (1998) From value chain to value constellation: Designing interactive strategy, *Harvard Business Review*, 71(4), 65-77.
- Rammal, H., and Rose, E. (2014) New perspectives on the internationalization of service firms, *International Marketing Review*, 31(6).
- Ravald, A., and Grönroos, C. (1996) The value concept and relationship marketing, *European journal of marketing*, 30(2), 19-30.
- Roth, A. V., and Menor, L. J. (2003) Insights into service operations management: a research agenda, *Production and Operations management*, 12(2), 145-164.

- Schmeisser B. (2013) A systematic review of literature on offshoring of value chain activities, *Journal of International Management*, 19(4), 390-406.
- Schotter, A. P., Mudambi, R., Doz, Y. L., and Gaur, A. (2017) Boundary spanning in global organizations, *Journal of Management Studies*, 54(4), 403-421.
- Shingal, A., Roy, M., and Sauvé, P. (2018) WTO+ Commitments on services in Asian PTAs, the role of regulatory homogeneity and goods trade complementarity, ARTNet Working Paper Series No. 178, Feb., UN ESCAP: Bangkok.
- Silvestro, R., Fitzgerald, L., Johnston, R., and Voss, C. (1992) Towards a classification of service processes, *International Journal of Service Industry Management*, 3(3), 62-75.
- Stabell, C. B., and Fjeldstad, Ø. D. (1998) Configuring Value for Competitive Advantage: On Chains, Shops, and Networks, *Strategic Management Journal*, 19(6): 413–437.
- Starbuck, W. H. (1992) Learning by Knowledge-Intensive Firms, *Journal of Management Studies*, 29(6): 713–740.
- Stringfellow, A., Teagarden, M. B., and Nie, W. (2008) Invisible costs in offshoring services work, *Journal of Operations Management*, 26(2), 164-179.
- Ström, P. and Nelson, R. (2010) Dynamic regional competitiveness in the creative economy: can peripheral communities have a place?, *The Service Industries Journal*, 30(4), 497-511.
- Ström, P., and Wahlqvist, E. (2010) Regional and firm competitiveness in the service-based economy: combining economic geography and international business theory, *Tijdschrift voor economische en sociale geografie (TESG)*, 101(3), 287-304.
- Szulanski, G. (1996) Exploring internal stickiness: impediments to the transfer of best practice within the firm, *Strategic Management Journal*, 17: 27–43.
- Thompson, J. D. (1967) *Organizations in Action* (First edit.). McGraw-Hill, New York, NY.
- Tsoukas, H., and Vladimirov, E. (2001) What is organizational knowledge?, *Journal of management studies*, 38(7), 973-993.
- Vargo, S. L., and Lusch, R. F. (2011) It's all B2B... and beyond: Toward a systems perspective of the market, *Industrial marketing management*, 40(2), 181-187.
- Vargo, S. L., and Lusch, R. F. (2014) *The service-dominant logic in marketing: Dialog, debate, and directions*, Routledge, New York.
- Von Nordenflycht, A. (2010) What is a professional service firm? Toward a theory and taxonomy of knowledge-intensive firms, *Academy of management Review*, 35(1), 155-174.
- Wentrup, R., Nakamura, H. R., and Ström, P. (2019) Uberization in Paris – the issue of trust between a digital platform and digital workers, *Critical perspectives on international business*, 15(1): 20-41
- Witreich, W. J. (1966) How to buy/sell professional services, *Harvard Business Review*, 44(2), 127-137.

Wojcik, D., Knight, E. and Pazitka, V. (2017) What turns cities into international financial centres? Analysis of cross-border investment banking 2000-2014, *Journal of Economic Geography*, 12(1), 1-33.

Woll, C. (2008) *Firm interests: How governments shape business lobbying on global trade*. Cornell University Press, London.

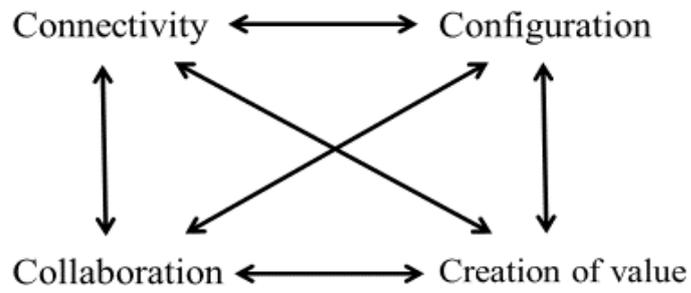
Wood, P. (2006) Urban development and knowledge-intensive business services: Too many unanswered questions?, *Growth and Change*, 37(3), 335-361.

World Bank (2016) *World Bank Open Data*. <http://data.worldbank.org/> [accessed 13 November 2016]

Zajac, E. J., Kraatz, M. S., and Bresser, R. K. F. (2000) Modeling the dynamics of strategic fit: A normative approach to strategic change, *Strategic Management Journal*, 21: 429–453

**FIGURE**

*Figure 1: A systems approach to service characteristics  
– The 4C framework*



Source: author's own