Abstract: This article analyses and develops the concept of international service based on a review of 407 articles published in high-ranking international business and service research journals. The review confirms that usage of the key concept of international service is ambiguous, and a new definition is proposed, characterising international service as a value co-creation process between two or more resource-integrating actors that do not share influential institutional arrangements because of national borders. This new definition clarifies conceptual differences between international service, international activity and intercultural (cross-cultural) service, and between international product and service. The revised definition also highlights the existence of differences other than cultural variation and how differing institutional arrangements may in part be an effect of national borders. The study advances theory development in this research domain by providing a conceptually sound definition of international service, potentially eliminating some of the conceptual confusion that has until now posed challenges for the operationalisation of key concepts in the field. The new definition can also be expected to enhance collaboration between international business and service researchers.

Keywords: International; service; co-creation; value; institution; culture
1. Introduction

It is important that researchers are not only heard but understood. When one author writes about service and another about services, should we assume they are researching the same topic? For example, one might consider the latter to be simply the plural form of the former. Against this, it can be argued that service is not the same as services (Vargo & Lusch, 2008), and that it is essential to explicitly define key concepts. In particular, the academic community must understand the nuances that distinguish concepts such as “international” and “cross-cultural” so that it is clear whether and when these can be used synonymously. In the absence of explicit definition and usage of key concepts, it becomes difficult to build a solid knowledge base. As argued here, this is especially the case given the increasing use of machine learning and artificial intelligence (e.g. Meta, Iris.ai) to conduct literature reviews. Conceptual clarity is also crucial for multidisciplinary research; for example, while the difference between service and services may seem obvious to service researchers, it may be less apparent to international business (IB) scholars or to a machine. To guard against misinterpretation of findings and to build a stronger research base, there must be shared and agreed definitions of key concepts across disciplines.

In recent decades, there has been a massive increase in international trade in “services”, and scholarly interest in service internationalisation and international service management has grown accordingly (Grönroos, 2016). Ongoing research in this field addresses a wide range of topics, from the inward internationalisation of Finnish tourism companies (Turunen & Nummela, 2017) to the outward internationalisation of Swedish online service providers (Wentrup, 2016) and from internationalisation of location-bound restaurant services (Otengi, Bakunda, Ngoma, Ntayi, & Munene, 2017) to Indian offshore firms (Upadhyayula, Dhandapani, & Karna, 2017), as well as service enterprises originating in both advanced countries (Shin, Mendoza, Hawkins, & Choi, 2017) and emerging countries (Boehe, 2016). These seemingly disparate topics and contexts are linked by their common interest in international service.

Despite the acknowledged importance of international service(s), theoretical development continues to lag behind practical need. It will be argued that this lack of theoretical development results in turn from poor conceptual development, and from a lack of communication between service scholars and the IB research community. Although, for instance, IB researchers have been encouraged to adopt recent knowledge on the role of context in value creation (Akaka, Vargo, & Lusch, 2013; Kaartemo, Akaka, & Vargo, 2017), they have continued to overlook the most recent conceptual developments in service research. In the light of calls for conceptual development to advance theoretical development in the field (Javalgi & Martin, 2007), the key concepts of international service management must be developed to encourage constructive communication between the IB and service research communities.

The purpose of the present article is to analyse and develop the concept of “international service”. A new definition of “international service” will facilitate better communication between IB and service researchers and so advance theory development in the domains of service internationalisation and international service management. By differentiating international service from related concepts, a coherent definition can promote theoretical development and eliminate the challenges of comparing statistics or communicating with practitioners and researchers from other disciplines. To that end, the study adopts the procedure proposed by Morse, Hupcey, and Cerdas (1996) to reveal a concept’s anatomy, along with Walker and Avant’s (1988) framework for transparent, objective, literature-based concept analysis and development.

Although less often utilised in business and management research, Morse et al.’s (1996) criteria for concept evaluation are commonly used in nursing studies to evaluate a concept’s level of maturity by assessing its definition and characteristics, as well as preconditions, outcomes and boundaries. Walker and Avant’s (1988) framework also has its origins in nursing studies and facilitates conceptual analysis and development by identifying the concept’s defining attributes, antecedents, consequences, model cases and empirical referents. The methodology of concept analysis has been
successfully used to clarify a range of significant ideas in nursing studies (Rodgers, 1989). However, Rodgers (1989) has criticised Walker and Avant’s (1988) framework for its positivist, reductionist static world empirical orientation, in which a rigid set of conditions is both necessary and sufficient to identify a concept. These shortcomings can be overcome by analysing the given concept’s significance, use and application. The present study takes account of this criticism by identifying the various uses of “international service” and by referring both to Morse et al.’s (1996) criteria for concept evaluation and to Rodgers’ (1989) ideas for concept development.

In practice, this conceptual analysis and development involved a review of references to international service in high-ranking IB and service research journals. The present study is not a review of the main research findings within these domains, which have previously been summarised elsewhere (e.g. Javalgi & White, 2002; Knight, 1999; Kundu & Lahiri, 2015; Merchant & Gaur, 2008; Samiee, 1999; Stafford, 2005; Vandermerwe & Chadwick, 1989). Rather, the article focuses on concept analysis and development, largely following Walker and Avant (1988) and the revised method described by Rodgers (1989). On that basis, the literature review follows eight predetermined steps.

1. Choose the key concept.
2. Evaluate the key concept.
3. Identify how the key concept is used, and distinguish it from related concepts.
4. Determine defining attributes of the key concept.
5. Identify antecedents and consequences of the key concept.
6. Develop a model case.
7. Construct additional cases.
8. Determine empirical referents of the key concept.

In this way, all use cases of international service were determined; key attributes were clarified; model cases were constructed; and borderline and opposite concepts were identified. Antecedents and consequences were discussed, and empirical referents were defined. Current usages of the concept of international service are discussed, and suggestions are made for its development. The review contributes to international service research by helping to define the field’s key concept and introducing a new framework for international service research, so enhancing the potential for theoretical development in related research domains.

2. Methodology
The conceptual study is based on a literature review of the following top-ranking journals in IB (DuBois, & Reeb, 2000; Jones, Covello, & Tang, 2011) and service research (Svensson, Slåtten, & Tronvoll, 2008; Svensson, Tronvoll, & Slåtten, 2008): Journal of International Business Studies, Management International Review, Journal of World Business (formerly Columbia Journal of World Business), International Marketing Review, International Business Review, Journal of International Marketing, Journal of Service Research, Journal of Services Marketing, Service Industries Journal, Journal of Service Management (formerly International Journal of Service Industry Management), and Journal of Service Theory and Practice (formerly Managing Service Quality). Using the Web of Science database (Thomson Reuters), relevant articles from these journals were identified by searching for those in which both of the terms “international” and “service” appeared in the article’s title, abstract or keywords (“TS”). The concept analysis was confined to articles published up to the end of September 2017. In total, the search returned 407 such articles.

All articles were downloaded and analysed using NVivo 10 software for qualitative data analysis. Using the text search function, all 511 references to “international service” (or its plural form) were identified, and these were coded to distinguish all use cases (Table 1). While some articles defined international service in terms of deeds, efforts or performance and discussed its special characteristics, a majority of the studies treated international service as an attribute of something (e.g. international...
service activities; international service firms) without discussing in detail the nature of that attribute. As well as coding references to international service, the reviewed articles were searched for related concepts. On identifying a potentially related concept, a review was undertaken to establish how that concept differed from the concept of international service.

3. Concept evaluation
For the purposes of this review, Morse et al.’s (1996) evaluation criteria were applied to determine the need for concept development. Their criteria include assessment of the concept’s definition (i.e. a concept must have a meaningful definition); characteristics (i.e. a concept must have certain characteristics that define it); boundaries (i.e. where not all characteristics are present or strong, or where there are new characteristics); preconditions (i.e. a concept must share similar antecedents); and outcomes (i.e. a concept must share similar outcomes).

Only one article was found to provide a formal definition of international services (plural): “International services differ critically from domestic services in two respects: (1) they necessarily involve something crossing national boundaries and (2) they have some type of engagement with

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a foreign culture” (Clark, Rajaratnam, & Smith, 1996, p. 15). In relation to international products, international services are defined as “deeds, performances, efforts, conducted across national boundaries in critical contact with foreign cultures” (Clark et al., 1996, p. 15).

There are three arguments in support of the view that international service remains poorly defined. First, Clark et al.’s (1996) definition is still rarely cited in the literature on service internationalisation. Following a number of literature reviews at the turn of the millennium (Grönroos, 1999; Knight, 1999; Samiee, 1999), interest in the more general theoretical development and conceptualisation of international service has declined. As Clark et al. (1996) suggested, this approach to international service research may be too broad, and there have since been more focused approaches.

Second, the key characteristics of international service have rarely been discussed. Although Zaheer, Lamin, and Subramani (2009) and Liu, Feils, and Scholnick (2011) have advanced understanding of service characteristics, these studies are insufficient to specify the characteristics of international service, as they do not take account of national borders when discussing service characteristics.

Finally, Clark et al.’s (1996) definition fails to draw a clear distinction between deeds and efforts as aspects of international service, and these refer merely to international activity. On their definition, all activities conducted across national borders in critical contact with foreign cultures are considered as instances of service. For instance, Wirtz, Tuzovic, and Ehret (2015) identified various activities as services, including R&D services, manufacturing services and government support services. This stands in striking contrast to the dictionary definition of service, which emphasises the help and welfare of others. Similarly, modern service research (Vargo & Lusch, 2014, p. 240) highlights how “services render service” by benefiting another actor. While there is little discussion of the differences between international and domestic service, scholars typically refer to the special characteristics of service as compared to products. In addition, many studies rely on statistics to distinguish between a good and a service.

It follows that there is only scattered information on the preconditions and consequences of international service. As a consequence of the challenges mentioned above, the concept of international service lacks clear boundaries, making it difficult to operationalise the concept for theoretical development. In particular, it proves difficult to understand what makes an activity a service or what factors other than cultural differences make international service a meaningful object of research.

Based on the above concept evaluation, it is argued here that the concept of international service remains undeveloped for research purposes. In particular, the concept as currently used fails to capture the theoretical insights of IB and service research over the past two decades. For that reason, conceptual development is needed in order to facilitate further theoretical development (Morse et al., 1996). In the next section, Walker and Avant’s (1988) steps are applied to distinguish between defining and irrelevant attributes of international service and to identify any similarities and differences between international service and related concepts.

4. Identifying usages of international service

4.1. Definitions

Having identified the key concept and evaluating the need for concept development, it was necessary to establish how the key concept is used, both in research and in real-world contexts (Walker & Avant, 1988). International service does not have its own dictionary definition; rather, it is constituted by two distinct terms: “international” and “service”. “International” refers to something involving two or more nations or occurring between countries (Merriam-Webster, 2016a). In business and management sciences, this concept is typically taken for granted as meaning “non-domestic”. As one exception, in discussing the difference between domestic and international
marketing some 50 years ago, Bartels proposed that “international” refers to “the environment in which trade and transactions are made across national borders, rather than within different national domains” (1968, p. 59).

“Service” is, in turn, a more ambiguous word; among other things, it may refer to help, use, benefit or “contribution to the welfare of others” (Merriam-Webster, 2016b). Vargo and Lusch (2004) discussed at some length how the term “service(s)” has been defined in the context of service research. In general, services are commonly defined in terms of intangible products, the absence of extractive or manufacturing industry or what goods are not. As the present study focuses on the analysis and development of the concept of “international service” rather than “service”, the following section describes only those key characteristics of service(s) that have framed the discussion in international services marketing in recent decades: service as a good or non-good, service as an encounter and service as a complex process. These categories were derived from the review of 511 references to the term “international service”. The taxonomy created here helps in developing the concept of international service, and especially in distinguishing international service from other forms of international activity.

4.2. Service as a good or non-good

In the literature, services are often considered to differ from goods. Services are intangible, heterogeneous, simultaneously produced and consumed and perishable. These characteristics are also referred to in the international service literature (Love & Ganotakis, 2013), but there is no clear definition of what constitutes a service industry. This is interesting, given that categorisation is known to affect research findings (Webster & Hardwick, 2005). While some have adopted the categorisation used in international trade statistics, others characterise service as either hard or soft (e.g. Venzin, Kumar, & Kleine, 2008). Erramilli and Rao's (1990) typology proposed that “soft” service firms are unable to export because it is difficult to separate production from consumption. In contrast, “hard” service firms can export, as production can be decoupled from consumption.

An alternative view is that services can be embedded in manufactured goods (Jack, As-Saber, Edwards, & Buckley, 2008), and that companies can provide product-related services (Zähringer, Niederberger, Blind, & Schletz, 2011). As products can have both goods and service elements, the distinction between a good and a service is misleading (Jack et al., 2008). Instead, goods and services are seen to constitute a continuum based on different “degrees of separability” (Jack et al., 2008), referring to customisation, post-sales service and other support activities. At one extreme, services are treated as goods (Shoham, Davidow, Klein, & Ruvio, 2006) - for instance, in a management education context, a product may be defined as “the curriculum, instructional style, and all of the ancillary services that constitute the educational service experience” (Javalgi, Joseph, & LaRosa, 2009, p. 372).

Whether a pure service or more tangible, service is often perceived as the object of a transaction, which can be produced (Shoham et al., 2006), offered (Karapetrovic & Willborn, 2001), customised (van Hoek, 2000), delivered (Segal-Horn & Dean, 2009), provided (Bianchi, 2011), sourced (Gleich, Schmeisser, & Zschoche, 2017), or consumed (Björkman & Kock, 1997). These authors partially oppose Clark et al.’s (1996) definition of service as an activity. Recently, there has been increasing criticism of treatments of service as a good or non-good (Örberg Jensen, & Petersen, 2014; Wirtz et al., 2015). The next section discusses two further conceptualisations of service as encounter and as complex process.

4.3. Service as encounter

Typically, discussion of the service encounter is confined to customer service in international service research (Swoboda & Elsner, 2013). However, as well as service provider and customer, the service encounter may involve the customer and others in the same spatial and temporal context. For instance, Sinkovics and Penz’s (2009) study of social distance in everyday interactions between international tourists and residents showed how international service is co-produced in the encounters of multiple actors. The service-as-encounter approach is characteristic of the intercultural service
literature (Hopkins, Hopkins, & Hoffman, 2005; Sharma, 2012; Wang & Mattila, 2010) and is also linked to the service quality literature, where customer satisfaction is often measured in terms of their experience of the service encounter (Solomon, Surprenant, Czepiel, & Gutman, 1985).

4.4. Service as complex process
Although service as encounter is typically operationalised as a simple, dyadic interaction, Solomon et al. (1985, p. 100) noted that “some [service encounters] may involve a series of dyadic interactions, while others are still more complex and involve a number of different actors”, so conceptualising service as a complex process.

The process approach typically divides service provision into pre-purchase, purchase and post-purchase stages (Moen, Endresen, & Gavlen, 2003) or on the delivery process. Sichtmann, von Selasinsky, and Diamantopoulos (2011) noted that customers play an important role in the delivery process. Rather than viewing service merely as a transaction involving goods or non-goods, both of these approaches emphasise the transformative aspect of service as integrating the resources of multiple actors in multiple encounters. In similar vein, Seggie and Griffith (2008) characterised service as a resource matching process. Both Sichtmann et al. (2011) and Seggie and Griffith (2008) build on insights from service-dominant (S-D) logic (Vargo & Lusch, 2004), in which value is co-created in a service process. Applying this approach to international service (Freiling, Wassermann, & Laudien, 2012), service is not a single encounter but a longer process, involving resource integration among service provider and multiple other actors.

5. Distinguishing international service from related concepts
To understand what is meant by international service, the concept must be distinguished from other closely related concepts (Walker & Avant, 1988). The present study draws on Clark et al.’s (1996) definition to distinguish between the key concept (international service) and the concepts of international activity and intercultural service.

5.1. International activity
As used in the context of international marketing, the concept of international activity typically refers to a firm’s export and import activities (Andersson et al., 2004; Pla-Barber & Puig, 2009; Serti, Tomasi, & Zanfei, 2010). In addition, other business functions such as R&D, production and licensing may be characterised as international activity (Hollenstein, 2005; Wagner, 2014). Measured as export share of total sales, international activity and activeness can be operationalised as variables and quantified in terms of scale and scope. In that sense, international service and international activity differ fundamentally. For instance, the operationalisation of international activity is based on statistics, without reference to service encounters or any more extended process. In fact, the concept of international activity takes no account of the parties to the service exchange. Above all, international activity does not entail value creation by the exchange partner, making this conceptualisation of international activity almost synonymous with Clark et al.’s (1996) definition of international service.

5.2. Intercultural or cross-cultural service
Intercultural service and cross-cultural service are closely related to international service (Sharma, Tam, & Kim, 2009). According to Stauss and Mang’s (1999, p. 331) widely used definition of intercultural service, “Service encounters are called inter-cultural if the service provider and the customer involved belong to different cultures”. Although intercultural service encounters are most visible in the context of international tourism (Stauss & Mang, 1999; Warden, Liu, Huang, & Lee, 2003), the concept does not discuss other influences stemming from the international context.

Studies of intercultural service build on the collective identity shared by a group of people (Hopkins et al., 2005) in terms of values, norms, language and communication style. As measured by cultural distance, this collective identity differentiates the group from other cultural groups.
(Sharma, 2012). The problems that arise when actors have different expectations in relation to service are assumed to increase with cultural distance, although the empirical evidence does not always support that assumption (Stauss & Mang, 1999). Within cross-cultural service research, the concept of “cross-cultural consumer service” (Zhang, Beatty, & Walsh, 2008) emphasises the particular influence of cultural differences on consumers, although intercultural differences may also be experienced by service providers (Wang & Mattila, 2010). Intercultural service encounters may also occur domestically (Bartels, 1968; Hopkins et al., 2005; Johnson, Meyers, & Williams, 2013), and the existence of both intranational differences and supranational similarities is widely acknowledged (Stauss & Mang, 1999). However, empirical data are typically collected from international customers, using country of residence as a proxy for the individual’s culture.

6. Determining defining attributes
Distinguishing a concept’s associated characteristics helps to distinguish between the key concept and related concepts (Walker & Avant, 1988). In the present context, “defining attributes” refer to the conceptualisation of international service as a process, to the value it creates, and to national differences in institutional arrangements. In particular, while acknowledging the complexity of the debate concerning service as good or non-good, service is considered here as a complex process or set of service encounters.

6.1. International service as process
The process view of international service builds on insights from S-D logic, in which tangible goods are part of service provision, and service is defined as the application of resources (Vargo & Lusch, 2016). In brief, S-D logic can be said to integrate the three usages of “service” in the domain literature as good or non-good, as encounter and as complex process.

The two elements of service as defined by S-D logic refer to the means and ends of service provision (Lusch & Vargo, 2011, p. 15) – that is, service is seen to comprise activities, deeds, processes and performances, and “these activities provide the benefits, or functions performed, for the beneficiary”. That second point is crucial, as it is no longer of interest whether the customer benefits from a tangible or intangible resource; what matters is that the customer perceives that value is created. This discussion of customer benefit is essentially absent from the current literature on service internationalisation.

6.2. Value as co-created in international service
According to Akaka et al. (2013), the international marketing literature has traditionally assumed that firms create value and customers destroy value. As an alternative, they invite consideration of the S-D logic insight that “benefit for another actor is built into the definition of service” (Vargo & Lusch, 2016, p. 7). S-D logic has reconceptualised value as co-created, defining value as “an improvement in system well-being” (Vargo, Maglio, & Akaka, 2008, p. 149). Value co-creation refers to resource integration actions by multiple market-facing, private and public actors that contribute to their mutual well-being (Vargo & Lusch, 2016). Ranjan and Read (2016) conducted a rigorous review of the concept of value co-creation to determine its core conceptual elements and mechanisms. They concluded that value co-creation has two primary conceptual dimensions: co-production (knowledge sharing, equity and interaction) and value-in-use (experience, relationship and personalisation). It follows that value co-creation is more than co-production of service activity (Alves, Ferreira, & Fernandes, 2016; Grönroos & Voima, 2013), as it takes account of the determination of value. In this regard, Laud and Karpen (2017) highlighted actor social embeddedness as a key antecedent of successful value co-creation. Additionally, beyond direct interactions among actors in service ecosystems, co-creation of value involves the signs and symbols that guide those actors (Pohlmann & Kaartemo, 2017). This approach promises to enhance studies of service internationalisation by shifting the focus from isolated encounters and firm resources to value co-creation involving multiple actors and the influence of the wider social context (Payne, Frow, & Eggert, 2017), including networks (Ghauri, Tasavori, & Zaefarian, 2014) and institutions (Akaka et al., 2013). S-D logic assumes that resource-integrating actors are connected by shared institutional arrangements – that is, by interdependent assemblages of institutions such as formal laws, as well as informal social
norms and conventions that provide a shortcut to cognition, communication and judgment. As important enablers or constraints in relation to human actions, institutions and institutional arrangements are central to an understanding of service and value co-creation (Vargo & Lusch, 2016).

6.3. The influence of national institutional arrangements

In contrast to domestic or local service, international service is affected by differences in national institutional arrangements. Here, institutional arrangements refer to the interdependent assemblages of institutions such as rules, norms, meanings, symbols and practices created and shaped over time to facilitate service exchange (Vargo & Lusch, 2016). In the case of intranational or supranational service, all participants are assumed to share influential institutional arrangements where international institutions may be present but are not influential. Interestingly, the relative importance of service quality measures is found to vary between developed and developing countries according to relative economic development (Malhotra, Ulgado, Agarwal, Shainesh, & Wu, 2005).

The literature on service internationalisation discusses various manifestations of institutional arrangements (Dikova, Sahib, & van Witteloostuijn, 2010; Liu et al., 2011; Schultz, 2005; Stare, 2002), including differences in government policies (Mas-Verdu, Ribeiro, & Roig Dobón, 2010); the influence of systems governing intellectual property rights (IPR) (Martínez-Noya & García-Canal, 2011); regulatory differences (Lejour & Verheijden, 2007) and the impact of home and host nations in general (Jain, Kundu, & Niederman, 2008). Institutional arrangements are seen to be culturally constituted (Venkatesh, Penaloza, & Firtat, 2006) and embodied in cultural symbols and values that are sometimes widely shared within a country, so constituting resources for international competition (Gaur, Kumar, & Singh, 2014). In line with this argument, it is widely acknowledged that international service is influenced by differences among national cultures (Sampson & Money, 2015) or “cultural distance” (Popli, Akbar, Kumar, & Gaur, 2016). National sociocultural dimensions influence international service (Agarwal, Malhotra, & Bolton, 2010; Chui & Kwok, 2008; Duque & Lado, 2010; Hyder & Fregidou-Malama, 2009; Liu et al., 2011; Morales Espinoza, 1999; Reihlen & Apel, 2007; Stare, 2002), and service processes are influenced by country of origin (Chattalas, Kramer, & Takada, 2008), other sociocultural factors (Malhotra et al., 2005) and language (Lejour & Verheijden, 2007). Interestingly, the relative importance of service quality dimensions has been found to vary across cultures (Morales Espinoza, 1999). Cultural differences have also been found to enable cost savings in sourcing global services by prompting firms to undertake more thorough analysis, so reducing the risk of cost estimation errors (Peeters, Dehon, & Garcia-Prieto, 2015).

7. Identifying antecedents and consequences

7.1. Antecedents of international service

Antecedents specify prerequisites for a given concept to occur (Walker & Avant, 1988). Here, it is considered that international service requires two or more resource-integrating actors with differing institutional arrangements as a consequence of national borders. While service may be influenced by both internal and external factors (Litteljohn, Roper, & Altinay, 2007), the focus here is on the external environment.

Integration in the international service process depends on the availability of requisite resources. According to Schultz (2005), companies may lack the requisite cultural skills, which suggests that cultural differences are not fundamentally problematic. Rather, challenges arise when companies lack the necessary resources for integration in foreign institutional arrangements. For instance, Seggie and Griffith (2008) categorised the resources needed to serve customers internationally in terms of financial capital, physical capital, legal capital, human capital, relational capital, organisational capital and informational capital. These must be matched in order to serve global segments across international markets. Here, national institutions and institutional arrangements are viewed as resources to be integrated in value co-creation – in other words, actors rely on institutions and institutional arrangements when providing service for others (or for themselves through self-service).
7.2. Consequences of international service

Consequences are the outcomes produced by the given concept's occurrence (Walker & Avant, 1988). Here, it is considered that international service requires that the resource-integrating activities of two or more actors with differing influential institutional arrangements due to national borders (antecedents) results in the co-creation of value (consequences). In particular, a benefit of some sort must be experienced by the service exchange partner; otherwise, cross-border deeds and performances are mere international activity – a generic term to describe (positive, negative and indifferent) efforts influenced by differences in national institutional arrangements.

8. Constructing a model case

As outlined in the Introduction, concept analysis and development encourages the construction of a model case, a borderline case and a contrary case in defining the key concept and its boundaries (Walker & Avant, 1988). By providing real-world examples, such cases serve to elaborate the concept and its boundaries. It is worth noting that these cases are not necessarily based on case research methodology (Yin, 2009) but are often invented and fictitious, as it is useful to apply the ideas beyond our own experience in order to grasp the concept's attributes, antecedents and consequences (Walker & Avant, 1988). The following cases are the author's inventions and are not based on case research methodology. In constructing the cases, however, valuable contextual information was retrieved from Doing Business (2016) and Takyi-Asiedu (1993).

8.1. Model case

The focal actor Professor Smith teaches Entrepreneurship at a US university. As a side business, he provides consulting services to local governments and municipalities and has therefore designed his service for the US environment. Typically, he presents various models of entrepreneurship societies in other universities, recruits a number of students, trains them for certain important tasks and eventually allows them to take the initiative in planning activities.

One of his students, Hassan, has recently moved back to Chad to work for the Ministry of Economy and Urban Planning. The Ministry has initiated a tendering process to improve entrepreneurship in the country, and Hassan believes that Professor Smith would be the best person for the job.

As the rules of the tendering process require, Professor Smith must register his company in Chad. This involves a lot of paperwork; Smith needs to notarise the company's deeds and articles of association, register at the Centre de Formalite des Entreprises and submit the Internal Regulation Code to the Labor Inspection Office. All the papers need to be filed either in French or Arabic, of which Professor Smith has no working knowledge. As the process takes more than two months, he employs a local partner to take care of the bureaucracy.

Professor Smith finds it difficult to activate locally-initiated entrepreneurship society, as huge differences in power distance mean that local people do not want to take the initiative. Instead, everyone expects to receive orders from the Professor or from someone else at a higher level in the hierarchy. These problems of power distance also arise when people are first recruited to participate in a brainstorming event. Local people do not believe their enterprises can succeed, as they are accustomed to the opposition of people in authority to the rise of new companies. Professor Smith also notes that people in Chad are strongly collectivist as compared to the individualism of the United States, and he finds that his usual material less effective in recruiting potential entrepreneurs.

Eventually, an entrepreneurship society is launched in N'Djamena, the capital of Chad. The society plans events to improve opportunity recognition skills; in particular, brainstorming events become popular, as these allow extended families to discuss opportunities for improving their business. As a result, new processes are launched in the area of cotton production, and participants acquire skills for starting up a business. These companies increased their profits, as they were able to charge more for higher quality cotton and could cut costs as a result of improved production processes.
8.2. Analysis of the model case

To clarify how the concept can be operationalised, the model case should include all defining attributes. Here, the case involves several resource-integrating actors whose influential institutional arrangements differ because of national borders. Professor Smith cannot sell his service package freely, as the host country’s regulations require him to register a company there. He must file papers in a foreign language and therefore needs help in translating these. In addition, several cultural differences make it difficult for the professor to sell his pre-designed package in Chad. Eventually, new resources are integrated into the service, and families are able to make more money from cotton production. In this way, value is co-created for the family by integrating their prior knowledge of cotton production with Professor Smith’s structured brainstorming sessions.

9. Development of additional cases

9.1. Borderline case

Professor Smith is originally from the UK. He lectures an MBA class at a US-based university, where he has worked for the past 20 years. Students originate from different parts of the world but have been US residents for several years. Hassan is from Sudan, where he was accustomed to studying by memorising everything his teacher said. However, the MBA class involves a lot of case assignments and groupwork. Hassan finds that, as well as covering what has been taught earlier, Professor Smith’s lecture helps him to add new insights to his prior knowledge.

9.2. Analysis of the borderline case

The borderline case contains some but not all of the critical attributes of international service. Clearly, the case refers to service, in the sense that Hassan learns from Professor Smith’s lectures. Additionally, the service includes international elements, as both Professor Smith and Hassan are originally from outside the USA. This borderline case illustrates that Professor Smith and Hassan largely share the same institutional arrangements, as both are accustomed to teaching and learning by means of the case study method, which is characteristic of MBA courses at US universities. Although there are some institutional differences, these do not relate directly to differences in national institutional arrangements. While one could argue that the behaviourist tradition in Sudan creates higher power distance, which is part of the national culture, these differences may be university- or even teacher-specific and cannot necessarily be generalised to the whole country.

9.3. Contrary case

Professor Smith delivers a lecture on entrepreneurship to an MBA class in France. After spending a year in Sudan, he has decided that he is ready to give the lecture in French. In advance, he decides to provide the students with some relevant scientific articles that address the course objectives. Professor Smith struggles to express his ideas in French but stubbornly continues. He provides the students with notes that he thinks may help them to understand his message. Unfortunately, the students cannot understand Professor Smith. They catch some of the words and some of the easier ideas. However, the students learn nothing from the lecture, and the notes mostly summarise ideas from the articles, which have already been covered in class.

9.4. Analysis of the contrary case

The contrary case presents a related concept that does not meet the definition of international service. The case describes an activity that crosses national borders and is in critical contact with a foreign culture. However, the case illustrates that when people perform in a foreign country, this is not always beneficial for others. In this case, the students learn nothing new; their time is wasted, and no value is co-created by resource-integrating actors.

10. Defining empirical referents

To operationalise a given phenomenon, empirical referents are needed in order to be able to measure when the concept actually occurs. In addition, empirical referents help to distinguish between the concept and other closely related concepts. As international service is no longer
understood merely as an activity crossing national borders and in critical contact with foreign cultures, it becomes necessary to measure national institutional arrangements and the perceived benefit of the process. The influence of national borders on activities has been studied in economics (Evans, 2003; Parsley & Wei, 2001), and these studies list some of the important differences related to national borders. For instance, differences in currencies, customs and other trade barriers increase the cost of operating in a foreign location. Nevertheless, more research is needed to understand the impact of these institutional differences.

Empirical referents from intercultural service studies help in measuring the influence of cultural differences on the service process. For example, Sharma et al.’s (2009) model shows that perceived cultural distance does not directly influence perceived satisfaction. Instead, actors need intercultural competence if they are to serve others.

As international service is defined in terms of benefits to the recipient, relevant empirical referents should demonstrate the occurrence of international service. This requires a better measure of experience (Klaus & Maklan, 2013) or of a system’s well-being, and there are some existing measures of utility and hedonic value. Based on a comprehensive review of the conceptualisation of perceived value, Boksberger and Melsen (2011) identified sacrifices and benefits from utilitarian and behavioural perspectives. The utilitarian perspective on perceived value involves a trade-off between the utility of service use and the disutility of obtaining and using the service. The behavioural perspective treats the construct of perceived value more comprehensively and attempts to explain it more in depth, beyond utilitarian benefits and sacrifices. For instance, in relation to medical tourism, Wang (2012) suggests that perceived value can be measured in terms of perceived medical quality, perceived service quality, enjoyment and perceived risk.

11. Discussion
In analysing and developing the concept of “international service”, the present study confirms that the key concept is used ambiguously in the field in both trade statistics and international service research. This is a serious concern, as theoretical advances and best practice development depend on conceptual coherence. It is argued here that the concept of international service is not clearly defined and lacks clearly described characteristics, delineated boundaries and documented antecedents and consequences. Although a formal definition of international service has been available for two decades (see Clark et al., 1996), this has been neither fully deployed nor further developed. In fact, scholars in this field rarely state explicitly what they mean by “international service”. This ambiguous and undefined use of the concept makes it difficult to compare and contrast studies in such areas as international service development, service internationalisation, international service management and international service strategy.

Based on the present analysis and development, the following new definition can be advanced: *International service is a process of value co-creation between two or more resource-integrating actors whose influential institutional arrangements differ as a consequence of national borders.* By setting clear boundaries for international service, the concept can be operationalised for theoretical development.

The revised definition of international service has four important theoretical implications. First, the revised definition clarifies the distinction between international activity and international service by emphasising value co-creation, serving as a reminder that international trade statistics are unlikely to provide information about international service. While useful in identifying activities that cross national borders, these statistics do not reveal whether actors share the same significant institutional arrangements, or whether these activities are ultimately beneficial to parties to the exchange.

Studies that focus on international activities are useful for understanding the co-creation process from the service provider perspective. For instance, Borda et al. (2017) discussed actions that may help to engage other actors in the co-creation process. The revised definition of international service shifts the focus of research from service provider to beneficiaries, with important
implications for how data should be collected and analysed and what research questions should be asked. In the longer run, international service scholars may see paradigmatic tension (Kuhn, 1970) between international activity and international service paradigms. While the former would focus on activities that cross national borders (such as R&D, manufacturing, and licensing), the latter would assess the utility of international activities to exchange partners.

Second, the revised definition highlights the role of differences other than cultural variation and how differences in institutional arrangements may owe in part to delineation by national borders. For instance, Agarwal et al. (2010) reported distinct differences between cross-national and cross-cultural models of perceived service quality. Fan and Tan (2015) showed that internationalisation can be influenced by both national culture and institutional arrangements specific to the industry (domain specificity) and confirmed a clear distinction between intercultural and international service.

As discussed earlier, intercultural service may also occur intranationally among actors with dissimilar cultural backgrounds or from different parts of the same country. In contrast, international service implies differences related to national cultures and is wider in scope, encompassing differences in institutional arrangements. Nevertheless, it seems possible that, in some instances, institutional arrangements make no difference to international activity in terms of outcome or process. Before referring to activities as international service, then, it is crucial to demonstrate that institutional arrangements account for influential differences in terms, for instance, of cost, quality or practices.

The revised definition also distinguishes between international product and international service. This does not mean that product-service continuum is obsolete but rather suggests that goods and technology are as much resources in the service process as are positive affect or knowledge in the context of customer service. Although conceptually equivalent, their importance may vary from one context to another, and studies of the product-service continuum remain relevant in developing a more general theory of international service. Moreover, the distinction between goods and services does not imply that service should be treated as a good or non-good but rather that actors may integrate products as well as other resources in the process of value co-creation. Service is no longer embedded in a manufactured good (Jack et al., 2008), but the good is embedded in the service process. The revised definition also accommodates the idea of technology as potentially useful knowledge as both a medium and an outcome of international service (Vargo, Wieland, & Akaka, 2015). In this regard, software as a service (SaaS), e-commerce and online platforms have recently become important international service contexts, and the increasing importance of technology may mask the role of national borders in international trade. Nevertheless, it remains important to understand how institutional arrangements influence decision makers. The influence of autonomous technology (Maglio, 2017) on international service research and practice is especially interesting, as algorithms can be designed to make machines serve people in a market, but this is not necessarily perceived as beneficial by those accustomed to other market practices and contexts. In general, international service research becomes a less bounded and more interesting field once it is recognised that goods and technologies are embedded in the service process.

Finally, by highlighting the processual nature of international service, the new definition shifts the focus from a single encounter to a chain of events that occur before any benefits emerge. Some of the events that impact value co-creation happen in the interaction between service provider and the customer, but many occur beyond direct interaction, i.e. co-production (Pohlmann & Kaartemo, 2017). This again challenges how data is currently collected and analysed in international service research and how researchers interpret those data. In particular, many studies of service internationalisation and international service management still rely on cross-sectional data collection and hypothesis testing (e.g. Upadhyayula et al., 2017). Some recent studies have been more processual and qualitative (e.g. Turunen & Nummela, 2017; Wentrup, 2016), but as in the case of traditional quantitative research, they do not necessarily capture exchange partner benefits. In focusing on internationalisation, these studies neglect the process of
value co-creation. The revised definition of international service encourages longitudinal studies and process theorising (Langley, Smallman, Tsoukas, & Van de Ven, 2013; Soulsby & Clark, 2011) to enhance understanding of how international service emerges over time. At its best, longitudinal qualitative research can provide a historical narrative that complements reductionist quantitative models, enriching our understanding of international service by introducing complexity and non-linear causation (Burgelman, 2011).

12. Conclusion
Unlike previous reviews of service internationalisation (Javalgi & White, 2002; Knight, 1999; Merchant & Gaur, 2008; Samiee, 1999; Stafford, 2005; Vandermerwe & Chadwick, 1989), this article focuses on the concept analysis and development of international service. By eliminating some of the conceptual confusion that has hindered the operationalisation of key variables, it is anticipated that a sound definition of international service will help to advance the knowledge base and theory development in this domain, as well as improving collaboration between IB and service researchers.

The revised definition of international service highlights the importance of differences in institutional arrangements caused by national borders and emphasises the co-creation of value by multiple resource-integrating actors. This article provides an approach which is able to unify scattered insights in the domain of international service research; in particular, the revised definition links theoretical developments in institutional and cultural research and S-D logic to advance our understanding of international service.

The study has four important theoretical implications. First, by emphasising value co-creation, the revised definition of international service clarifies the difference between international activity and international service. The article questions the use of international trade statistics in international service research, which in their present form fail to take account of the concept’s complexity (Akaka et al., 2013). Second, the article invites greater attention to differences in institutional arrangements beyond cultural variation, as these impact significantly on market practices (Kjellberg & Helgesson, 2007). Third, the revised definition draws a distinction between international product and international service. The revised definition also accommodates technology as potentially useful knowledge, both as medium and outcome of international service (Vargo et al., 2015). This is reflected in the recent rise of SaaS and e-commerce, as well as autonomous technology, which is likely to change the context of international service research. Finally, by shifting the focus from single encounter to process, the new definition directs theoretical attention to international service as process (Langley et al., 2013; Soulsby & Clark, 2011).

This review suggests that the focus of international service research should shift from companies to the resources embedded in various institutional arrangements, and to the activities involved in value co-creation. This aligns with urgent calls to study international service as a complex process (Akaka et al., 2013) and beyond dyadic encounters (Sampson & Money, 2015).

It is hoped that the present study will promote more systematic use of key concepts in research on service internationalisation and international service management. As international service research remains scattered in this regard, meta-analysis of research findings has proved challenging or impossible. It is argued here that more coherent conceptualisation of “international service” will make it possible to compare and contrast research findings with greater scientific rigour. In due course, this should also facilitate more robust managerial application. Following Vargo (2007), it seems clear that we need a positive theory of international service before advancing any normative suggestions. The present article can be said to have indirect managerial and societal implications by providing a strong conceptual basis for asking what resources and activities support value co-creation in various countries; how differences in signs and symbols influence interpretations of value propositions internationally; what role technology plays in international service provision; and how service providers can support customer value creation in a foreign location beyond immediate interaction.
The article is not without limitations. First, the review was confined to top IB and service research journals. However, although it does not cover the whole research domain, the review encompasses the most influential articles published over the past two decades. Second, the concept analysis is based on Walker and Avant (1988). The author is aware of the criticisms of their simplified model (Rodgers, 1989; Weavert & Mitcham, 2008) and the likely limits it imposes. However, this criticism is acknowledged by extending Walker and Avant’s (1988) model to include concept development. The method is similar to the well-documented concept analysis and development process recently employed by Payne et al. (2017) to analyse the concept of customer value proposition. By documenting the process more explicitly, this framework can be utilised in future studies to advance theory development, both within international service research and in the wider field of business and management.

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