The purpose of this dissertation is to investigate the enhancement of customer participation for superior value outcomes in knowledge intensive business services.

Knowledge intensive business services (KIBS) are considered a cornerstone of contemporary developed economies. Services like R&D, management consultancy, and engineering apply their specialized knowledge, competencies, and other resources to help customer organizations overcome specific challenges and grow. Nevertheless, most of the time, it is difficult to produce and deliver these services without customer participation (CP) - customer’s input of resources - be it information and knowledge, computing infrastructure, or access to business networks. Extant studies also indicate that CP can generate various value outcomes for both customer and provider organizations. However, many crucial questions remain unanswered.

How do customer organizations actually participate in the service processes of knowledge intensive business services? Which value outcomes does it generate, for both customer and provider organizations? How can customer participation be enhanced to generate superior value outcomes? These are the questions answered in this study through the investigation of three cases, each containing one customer and one provider organization involved in a specific knowledge-based service project. The findings generate deeper academic understandings and insights. Also, managers will find the study helpful for creating and realizing superior value outcomes through the enhancement of CP.
ENHANCING CUSTOMER PARTICIPATION FOR SUPERIOR VALUE OUTCOMES IN KNOWLEDGE INTENSIVE BUSINESS SERVICES

Mekhail Mustak
Knowledge intensive business services (KIBS) play various profound roles in contemporary developed economics. They contribute toward overcoming a variety of challenges that customer organizations face, and assist customers in a range of business operations requiring specialized knowledge and competencies. Thus, KIBS are critical contributors to their customer organizations’ functioning and growth. Moreover, KIBS organizations are one of the major employers of a skilled and educated workforce and are a key source of innovation. Examples of KIBS include R&D, advertising, engineering, and consultancy services.

Various resources possessed by service providers that are specific to the domains in which they operate are at the core of value creation in KIBS. These resources include professional knowledge, competencies, expertise, and business networks, paired with various tangible resources. However, often, the context-specific resources that are also necessary to produce and deliver the services are actually possessed by customer organizations. Examples include market and competitor information, problem details, and various tangible resources. Hence, customer participation (CP) – customer’s input of resources – is crucial for the successful production and delivery of services and thus value creation in KIBS. The extant literature also provides indications of various value outcomes that CP may generate, including increased productivity, decreased cost, and a stronger provider–customer relationship. Therefore, the enhancement of CP is beneficial for both customer and provider organizations via the generation of superior value outcomes.

However, the majority of extant studies have focused on individual consumers, and research-based knowledge in business-to-business contexts in general, or KIBS in particular, are limited or scarce. Due to a variety of differences, including the degree of resource inputs required, the decision-making processes involved, the number of participants, and the highly customized nature of KIBS, it is difficult to transfer consumer-based knowledge to KIBS. Hence, many of the opportunities for creating superior value outcomes through the enhancement CP are being lost.

In order to address this crucial challenge, the purpose of this study is to investigate the enhancement of customer participation for superior value outcomes in knowledge intensive business services. This purpose is achieved through three specific research questions (RQs):

RQ 1. How do customer organizations participate in the service processes of knowledge intensive business services?
RQ 2. How do customer and provider organizations involved in knowledge intensive business services perceive the value outcomes of customer participation?

RQ 3. How may customer and provider organizations enhance customer participation in knowledge intensive business services through their actions and activities?

As existing knowledge on this topic is limited, this study takes an explorative approach in order to generate deeper understandings and insights. It develops an initial exploratory framework based on existing knowledge on KIBS, CP, and value creation. Going forward, the exploratory framework is helpful for investigating the phenomenon in a knowledgeable and focused manner.

Four papers have been written to address these research questions. The “Introductory Essay” links the papers together and draws on findings and excerpts derived from them to create a holistic understanding of the enhancement of CP for superior value outcomes. The first two papers are literature reviews and are based on a systematic literature review methodology. Then, taking a dyadic perspective, a case study methodology is used to perform the empirical investigation. Three cases were investigated, each containing one customer and one service provider organization involved in a KIBS project.

The literature reviews show that the initial concept of CP revolved around increasing productivity via customers’ labor through the shift of a portion of service production and delivery tasks to them. Since then, it has gradually evolved to encompass a wide variety of customer inputs. Thus, the contemporary conceptualization of CP incorporates customers’ involvement in producing any resources used in creating and realizing value. It was also found that the extant literature put forward three approaches to managing CP. The first approach is to manage customers as partial employees and to apply human resource management methods to improve their participative performance. The second approach advocates developing precise service plans and blueprints that incorporate specific actions and tasks for customers and help them to perform those actions and tasks. The third approach focuses on the various roles adopted by customers in service production and delivery processes and supporting them in the performance of those roles. A range of value outcomes of CP are also identified through the literature reviews, albeit most of them are highly focused on consumer services.

The empirical investigation generated focused and context-specific knowledge. The findings show that customer and provider organizations of KIBS perceive four different categories of value outcomes of CP: functional, economic, relational, and strategic values. However, the individual value components inside each value category may differ between the customer and
provider organizations. The findings also reveal that the enhancement of CP follows the processual nature of KIBS, which can largely be divided into three stages: initiation, implementation, and continuation/cessation. The enhancement opportunities lie both inside the organizational boundaries and in the provider-customer interaction interface. In the initiation phase, actions and activities that enhance CP include customer involvement in problem identification and solution development, the identification and communication of the potential value outcomes, and the reduction of perceived risks and uncertainties. In the implementation phase, establishing operational guidelines and communication procedures, providing appropriate training and education to customers, and developing relationship and trust between the organizations enhance CP. In the third phase, titled continuation/cessation, resolutions of various conflicts and the conduction of regular corrective measures are beneficial toward CP enhancement.

The study makes multiple theoretical contributions. It creates a coherent understanding regarding the conceptualization of CP by systematically reviewing the extant knowledge base. It also shows the specific inputs that customer organizations may provide in service processes of KIBS, which helps to grasp the processual nature of CP enhancements. It clearly demonstrates that enhancement of CP requires situation- and stage-specific actions and activities from both customer and provider organizations as the service processes progress.

This study is among the first to explore the perceived value outcomes of CP in KIBS. Through its dyadic perspective, it shows that the value outcomes of CP unfold over time and become more inclusive alongside the advancement of service processes. The study also provides empirical evidence on the differences between CP and value creation, and on the association between the two. In addition, it provides clear suggestions to managers for capturing the opportunities to create superior value outcomes through CP enhancement.

Keywords: Knowledge intensive business services; KIBS; customer participation; CP; value; value outcomes
Tietointensiiviset liiketoimintapalvelut (Knowledge Intensive Business Services, KIBS) ovat nykyaikaisten kehittyneiden talouksien kulmakiviä monestakin näkökulmasta. Ensinnäkin nämä palvelut ovat tärkeitä niitä hyödyntävien asiakasorganisaatioiden toiminnalle ja kasvuille. Lisäksi niiden tuottajat sekä työllistävät taitavaa ja koulutettua työvoimaa että ovat yksi keskeisiä innovaatioiden lähteitä. Tietointensiivisiä liiketoiminnanpalveluita ovat esimerkiksi tuotekehitys-, mainonta-, suunnittelu- ja konsultointipalvelut.


Tutkimuksella on useita teoreettisia kontribuutioita. Ensinnäkin, perustuen olemassa olevaan tutkimukseen se yhdenmukaistaa asiakkaan osallistumisen käsitettä ja johtamiseen liittyvää keskustelua. Toiseksi tutkimus tunnistaa selkeitä asiakasorganisaation tuottamia panoksia tietointensiivisten liiketoimintapalveluiden tuottamisessa ja toimittamisessa. Kolmanneksi tutkimus demonstroi asiakkaan osallistumisen prosessimaisen luonnetta määrittelemällä tarvittavat tilanne- ja ajankohta spesifiset toimet ja toiminnot. Edelleen tutkimus tuo esille empirisiä todisteita asiakkaan osallistumisen ja arvon
tuottamisen eroista sekä niiden välisistä yhteyksistä. Tutkimus antaa myös selkeitä yritysjohdollisia ehdotuksia asiakkaan osallistumisen lisäämiseksi paremman arvon luomiseksi.

Avainsanat: tietointensiiviset liiketoimintapalvelut; asiakkaan osallistuminen, arvo, arvontuotto
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Mekhail
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PART I: INTRODUCTORY ESSAY
1 INTRODUCTION

1.1 Customer participation to create value in knowledge intensive business services

Knowledge intensive business services (KIBS) are a cornerstone of contemporary developed economics (World Bank 2016; Muller & Doloreux 2009; Miles 2005). KIBS are specialized business services that support customer organizations to function smoothly through knowledge-based inputs to their business processes (Muller & Doloreux 2009; Bettencourt et al. 2002). Typical examples of KIBS include management consultancy, advertising, research and development, accounting, legal, computer and software related services (Nordenflycht 2010; Miles 2005; Kuusisto & Viljamaa 2004). Through using these services, customer organizations create value to reach specific organizational objectives or overcome business-related challenges (Santos & Spring 2015; Aarikka-Stenroos & Jaakkola 2012; Bettencourt et al. 2002). KIBS providers appropriate value for themselves in return for service production and delivery (Cf. Jacobson 2003; Möller & Törrönen 2003).

The service providers’ professional knowledge, competencies, expertise, and business networks, paired with their various tangible resources, lie at the core of value creation in KIBS (Santos & Spring 2015; Strambach 2008; Bettencourt et al. 2002). In addition, the customer organization’s supply of resources, especially those that are context-specific, is often crucial in producing and delivering the services and thus creating value (Aarikka-Stenroos & Jaakkola 2012; Skjølsvik et al. 2007; Bettencourt et al. 2002). Typical resources that customers generally provide include information, tacit knowledge, computing infrastructure, access to production and testing facilities, and the involvement of personnel in quality control (Strambach 2008; Skjølsvik et al. 2007; Bettencourt et al. 2002).

The importance of value creation cannot be over-emphasized, especially in marketing (Kumar & Reinartz 2016; Grönroos & Voima 2013; Vargo & Lusch 2004; Woodruff 1997; Zeithaml 1988). In a recently published list of top research priorities in marketing, the Marketing Science Institute (MSI) stated, “Any in-sights in this area have significant implications for the long-term financial health of an organization. It truly is at the heart of what marketing is all about.” (MSI 2014, p. 9). Half of the 30 Dow Jones (USA) or of the 30 DAX (Germany) companies – large organizations that represent and
reflect the stock markets of their respective countries – explicitly refer to the notion of value creation in their mission or vision statements, clearly indicating its importance in practice (Kumar & Reinartz 2016). What makes value creation distinctive in KIBS is the high degree of resource inputs from customers, and frequent and intense interactions between customer and provider organizations to integrate and exploit those resources (Aarikka-Stenroos & Jaakkola 2012; Skjølsvik et al. 2007; Bettencourt et al. 2002).

In this study, customer participation (CP) is defined as customer’s input of resources in service production and delivery processes (Etgar 2008; Lusch et al. 2007). CP influences value creation in multiple ways (Lusch et al. 2007; Prahalad & Ramaswamy 2004). Contemporary understanding on value creation, based on service-based business logics, postulates that resources do not ‘carry’ value per se (Grönroos & Voima 2013; Vargo & Lusch 2004). Rather, value is created by the beneficiary through the accumulation and utilisation of resources, namely products or services, and is determined by the same entity (Kumar & Reinartz 2016; Vargo & Lusch 2004). As customer organizations influence multiple dimensions of the services through their participation, value creation in KIBS is significantly influenced by CP (Cf. Lusch et al. 2007). Therefore, through enhancement of CP, superior value outcomes can be attained for both customers and service providers (Etgar 2008; Lusch et al. 2007; Prahalad & Ramaswamy 2004).

The extant research suggests that in general, in return for their resource contributions, customers may enjoy better control over the service production and delivery processes (hereinafter “service processes”), and receive customized services that meet their exact needs (Etgar 2008; Prahalad & Ramaswamy 2004; Bitner et al. 1997). In addition, they may realize value through reduced service pricing and discounts (Bitner et al. 1997; Bateson 1985; Lovelock & Young 1979). For the service providers, CP helps to overcome shortage of the resources necessary to produce and deliver the services, identify exact customer needs and develop fitting solutions, and increase productivity (Aarikka-Stenroos & Jaakkola 2012; Etgar 2008; Bettencourt et al. 2002). Moreover, CP may contribute to value creation in the form of improved relationships between customer and provider organizations (Barry & Terry 2008; Andersen & Kumar 2006; Halinen 1997). Hence, CP enhancement is of great importance to creating superior value outcomes (Wang et al. 2013; Strambach 2008; Bettencourt et al. 2002; Lapierre 1997).

In this study, CP enhancement denotes improving and facilitating customer resource provision in service processes (Bettencourt et al. 2002). It includes removing barriers to the customer’s effective resource inputs (Etgar 2008; Skjølsvik et al. 2007). The resources provided by the customers should complement the suppliers’ own resources, and help overcome the resource
deficiencies the later may have (Strambach 2008; Løwendahl 2005). Moreover, provision of resources in a timely manner is also crucial (Petri & Jacob 2016).

In addition to the innate importance of CP in value creation, CP enhancement can help overcome various challenges set by contemporary markets. In recent years, exponential improvements in information and communication technologies have made it easier to provide generic knowledge-based services—such as regular technical assistance or software support—over vast physical distances (Lacity et al. 2009; Ellram et al. 2008). Strambach (2008, p. 155) argues that “The mutually reinforcing processes of deregulation and liberalisation of product and service markets, together with new developments in ICT that increase access to spatially distributed knowledge stocks, are pulling down barriers to knowledge flows and enhancing the connectivity of international factor markets and the mobility of skilled workforces.” Thus, for KIBS providers, the advantage of geographical proximity to customers is fast eroding (Lacity et al. 2009; Glückler 2006). To overcome this particular problem, many KIBS providers are reshaping their value propositions to offer highly technical and sophisticated services that often require face-to-face interactions with the customers along with intense collaboration, thus reviving the importance of CP (Cf. Aslesen & Isaksen 2007; Glückler 2006).

Moreover, the recent rise and development of solution-based businesses, which often closely resemble KIBS, have yet further consolidated the importance of CP in service processes (Macdonald et al. 2016; Nordin & Kowalkowski 2010). Offering a complete solution—a mix of specialized product-service bundles to meet specific customer needs—requires the mobilization, combination, modification, and delivery of a diverse range of resources and expertise, something that is often difficult for a particular provider to execute and deliver (Macdonald et al. 2016; Ulaga & Reinartz 2011). Value creation in these businesses is often shaped by the extent to which providers can collaborate with customers to overcome resource shortages (Petri & Jacob 2016; Ulaga & Reinartz 2011). Especially the integrated services with the core products require high degree and quality of CP, as the services have transformed from traditional auxiliary services to complex and knowledge-based services (Ulaga & Reinartz 2011).

In addition to assisting their customer organizations to improve their functioning and business performance, KIBS providers are one of the most rapidly growing economic sectors, create employment for educated and skilled professionals, and are a major source of innovation (World Bank 2016; Corrocher et al. 2009; Muller & Doloreux 2009; Miles 2005). Thus, any opportunity to create superior value outcomes through CP enhancement in
KIBS has the potential to create wide-ranging positive effects both up- and downstream of their value chains (Gallouj 2002; Hertog 2000).

1.2 Paucity of relevant research in extant knowledge base

Despite the prospect of creating superior value outcomes in KIBS through CP enhancement, the extant research falls surprisingly short of providing deep insights into the topic. This particular shortcoming restricts academic understanding and further investigation in relation to CP enhancement, value creation, and the connections between the two (Breidbach & Maglio 2016; La et al. 2009; Løwendahl 2005; Lapierre 1997). For managers, the lack of guidance based on appropriate scientific research results in the loss of many value creation opportunities through CP enhancement (Wang et al. 2013; Skjølsvik et al. 2007).

The extant research on CP enhancement and the resulting value outcomes is conducted predominantly in the context of individual consumers (see, e.g., Dong et al. 2014; Auh et al. 2007; Bendapudi & Leone 2003; Bitner et al. 1997). It is for several reasons difficult to transfer and apply this knowledge to business-to-business (B-to-B) contexts (Lombardo & Cabiddu 2016; Wang et al. 2013; Strambach 2008). Individual consumers make their own decisions on resource contribution and participation-related actions and activities (Tax et al. 2006; Bendapudi & Leone 2003; Bitner et al. 1997). Moreover, service providers are often in a position to dictate the design and execution of service production and delivery (Tax et al. 2006; Manolis et al. 2001). Therefore, they hold the leverage in the service processes to regulate customers’ actions and activities to some extent (Tax et al. 2006; Dabholkar 1990). Accordingly, existing studies are geared toward controlling the individual consumers in the service processes by either treating them as “partial employees” (see, e.g., Hsieh et al. 2004; Manolis et al. 2001), expediting their participation through improved service designs and blueprints (see, e.g., Tax et al. 2006), or refining the various roles they adopt in the service processes (see, e.g., Bitner et al. 1997).

The business organization as customer employs a group of people – its personnel – who belong to various organizational functions and hierarchies, apply diversified decision-making processes, and have different resources under their control (Bell & Menguc 2002; Tsui et al. 1997; Levinson 1965). In addition, the power balance is often tilted towards the customer organization, a typical characteristic of B-to-B markets (Ford & Mouzas 2013; Håkansson et al. 2010; Palmatier et al. 2006). Hence, trying to manage the customers’ resource inputs by treating them as “partial employees” often produces
unsatisfactory results (Håkansson et al. 2010; Halinen 1997). Neither is designing and executing predetermined service blueprints or specific customer roles likely to be effective, as the service processes in KIBS are largely tailored to fit the unique needs of the specific customer (Strambach 2008; Bettencourt et al. 2002).

In trying to understand the value outcomes of CP in KIBS, the challenges again lie in the transfer and application of knowledge from the extant consumer-based studies. Where consumer services are concerned, the value outcomes are perceived and judged by the individual customers (Vargo & Lusch 2004; Bendapudi & Leone 2003). The value outcomes in B-to-B contexts are the accumulation of value perceptions of a large number of personnel on the beneficiary’s side (Macdonald et al. 2016; Levinson 1965). These value perceptions are generally diverse in nature and can be shaped by individual, functional or organizational interests and goals (Macdonald et al. 2016; Aarikka-Stenroos & Jaakkola 2012). Combined, they take much more complex forms compared to that of the individual consumer, and are difficult to understand and explain through the application of the extant knowledge generated in consumer contexts (Marcos-Cuevas et al. 2016; Keränen & Jalkala 2013; La et al. 2009).

Traditional marketing research on CP enhancement and value creation is dominated by the seller perspective (see, e.g., Fließ & Kleinaltenkamp 2004; Dabholkar 1990; Kelley et al. 1990; Mills & Moberg 1982). This inclination probably originates from two streams of thought (Grönroos 2008). First, the traditional conceptualization that production and delivery of services are directed and dominated by providers, although customers could participate (Bendapudi & Leone 2003; Lovelock & Young 1979). Second, the legacy of the value chain model where providers are considered producers and distributors of value to the customer (Porter 1985). Some recent studies grounded on service-based business logics have emphasized the importance of resource interactions in B-to-B settings, but are still dominated by the provider perspective (Cf. Aarikka-Stenroos & Jaakkola 2012). Although customers are contributing their own resources to the service processes through CP, their perspective is often neglected in studying CP enhancements and value outcomes.

This study argues that considering the customer’s perspective is equally important to analyse CP enhancement for superior value outcomes in KIBS (Cf. Aarikka-Stenroos & Jaakkola 2012; Andersen & Kumar 2006). Both customer and provider organizations may contribute to enhance CP (Aarikka-Stenroos & Jaakkola 2012; Prahalad & Ramaswamy 2004). The actions and activities that are required from them to successfully induce and integrate customer’s resources are often different, but may influence each other
The same applies to value outcomes, as customers and service providers may perceive dissimilar value outcomes resulting from CP, but each party can influence the value perception of the other (Grönroos 2011; Trasorras et al. 2009; Halinen 1997). Hence, analysing the customer’s and the provider’s perspectives simultaneously is necessary. It will help create understanding in relation to the expectations and benefits of CP for both customer and provider organizations, and contribute towards facilitating smooth and efficient input, combination and integration of resources (Cf. Aarikka-Stenroos & Jaakkola 2012; Grönroos 2011; Trasorras et al. 2009).

Few studies have empirically investigated CP enhancement or the resulting superior value outcomes in KIBS or overall B-to-B contexts. Among those that have, Aarikka-Stenroos and Jaakkola (2012) focus on the customers and providers’ joint problem solving processes in KIBS to create value. However, the researchers stop short of examining how the challenges are overcome where there is a lack of appropriate participation on the part of the customer in the problem solving processes. On the other hand, the study by Santos and Spring (2015) explores mainly the alternatives options for the KIBS providers in case of shortage of necessary resource inputs from the customers. Bettencourt et al. (2002) concentrate on providing an overall framework on CP management with a high managerial orientation. Again, the study is dominated by the service provider perspective. Aside from these few studies, for the most part, the extant knowledge base is formed of conceptual arguments and discussions based on theoretical reasoning, and lacks substantial empirical investigation and support (Etgar 2008; Prahalad & Ramaswamy 2004). Thus, further real-life based investigations on CP enhancement and value creation are needed to establish research knowledge on concrete empirical foundations.

The extant research generally applies a static perspective on analysing CP enhancement and the resulting value outcomes (Bettencourt et al. 2002). The processual nature of service processes and thus the customers’ resource inputs are largely ignored (Aarikka-Stenroos & Jaakkola 2012). However, the service processes in KIBS are, relatively, much longer than traditional services, and the resource inputs and integrations should be conceptualized as longitudinal processes (Santos & Spring 2015; Strambach 2008). Also, the value outcomes in KIBS often emerge long after the service processes cease, making it important to conceptualize CP enhancement for superior value outcomes as longitudinal (Aarikka-Stenroos & Jaakkola 2012).
1.3 Purpose of this study

Considering the importance of CP in producing and delivering KIBS, and the value creation opportunities offered to both customer and service provider organizations, the purpose of this study is to investigate the enhancement of customer participation for superior value outcomes in knowledge intensive business services. The purpose is further divided into three specific research questions to help generate definitive and focused knowledge. Moreover, when combined, the answers will result in holistic understandings in relation to the purpose.

To address the purpose, the first logical step is to understand the extent and scope of CP in KIBS. What does CP mean? What does it include, and what not? What is meant by “resource inputs” in reality? Further exploration of CP enhancement to create superior value outcomes in KIBS cannot proceed without appropriate comprehension of these issues (Santos & Spring 2015; Løwendahl 2005). Therefore, the first research question (RQ) posed by the study is:

**RQ 1.** How do customer organizations participate in the service processes of knowledge intensive business services?

Next, to investigate the attainment of superior value outcomes through CP enhancement, one need to know how the organizations involved in knowledge intensive business services actually perceive the value outcomes of CP in reality (Lombardo & Cabiddu 2016; Lapierre 1997). Since the extant knowledge in KIBS or the overall B-to-B contexts are scant, and knowledge available in consumer contexts is difficult to transfer and apply in KIBS, the second research question is geared towards investigating this particular issue:

**RQ 2.** How do customer and provider organizations involved in knowledge intensive business services perceive the value outcomes of customer participation?

Last, to address the purpose of this study appropriately, the final step is to understand CP enhancement in KIBS. The extant studies dominated by the provider perspective mainly examine how the providers may influence appropriate resource inputs from the customer organization. However, some studies indicate that the customer organizations may also act by themselves to enhance their participation (see, e.g., Aarikka-Stenroos & Jaakkola 2012; Bettencourt et al. 2002). Thus, in investigating CP enhancement, this study considers the actions and activities of both customer and provider
organizations. In addition, it takes the processual nature of KIBS into consideration. Again, as the extant knowledge base does not provide sufficient understanding to satisfy this line of enquiry, the third research question posed by this study is:

**RQ 3. How may customer and provider organizations enhance customer participation in knowledge intensive business services through their actions and activities?**

This doctoral dissertation addresses these research questions via four papers, whose particulars are as follows:


- **Paper 3:** Mustak, Mekhail: “Customer participation in knowledge intensive business services: Perceived value outcomes from dyadic perspective.” Earlier versions of the paper have been presented in 13th International Research Conference in Service Management 2014, La Londe les Maures, France and Naples Forum on Service 2015, Italy.

- **Paper 4:** Mustak, Mekhail: “Enhancing customer participation in knowledge intensive business services”. The initial concept of the study and its conceptual grounding have been presented earlier, in American Marketing Association Servsig Conference 2012, Helsinki, Finland and European Marketing Association Conference 2013, Istanbul, Turkey.

Table 1 illustrates how each research question is answered, drawing on findings and excerpts from the individual papers.
Table 1 Relationship between the purpose, the research questions and the papers included in this doctoral dissertation

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Research question</th>
<th>Corresponding Paper</th>
</tr>
</thead>
</table>
| To investigate enhancement of customer participation for superior value outcomes in knowledge intensive business services. | How do customer organizations participate in the service processes of knowledge intensive business services? How do customer and provider organizations involved in knowledge intensive business services perceive the value outcomes of customer participation? How may customer and provider organizations enhance customer participation in knowledge intensive business services through their actions and activities? | Paper 1  
Paper 3  
Paper 4  
Paper 2  
Paper 3  
Paper 2  
Paper 4 |

1.4 Positioning the study and defining the key concepts and constructs

This study is explorative in nature and underpinned by both theoretical and managerial motivations (Edmondson & Mcmanus 2007; Stebbins 2001). To generate deeper insights on CP enhancement and the resulting value outcomes, the researcher has drawn on three domains of interconnected literatures: CP, service-based business logics, and literatures that provide contextual knowledge in KIBS and B-to-B settings. The different literature domains provide complementary conceptualizations and understandings, and thus help investigate various dimensions of value creation through CP enhancement. The positioning of this study is illustrated in Figure 1, which depicts the individual domains of the literatures, and how this study is supported by all three literature domains.
The extant research on CP is mainly conducted in the context of consumer services (see, e.g., Dong et al. 2008; Auh et al. 2007; Tax et al. 2006; Bendapudi & Leone 2003; Bitner et al. 1997). Despite the contextual difference, these legacy literatures are useful in conceiving the CP concept, especially its focus and scope. The studies are also beneficial to understanding the connection between CP and the resulting value outcomes (Chan et al. 2010; File et al. 1992; Dabholkar 1990).

This particular focus on CP is a conscious one. Previous literatures often used various other terminologies as synonymous to CP, for example, co-production (Ford & Dickson 2012; Dong et al. 2008; Auh et al. 2007) and co-creation (Payne et al. 2008; Vargo & Lusch 2004). However, a close dissection of the terminologies reveals the innate differences they carry. The term “co-production” is broader in scope. It encompasses the actions and activities of both customers and providers – as they “co-produce” something (Dong & Sivakumar 2017; Grönroos & Voima 2013; Mills & Moberg 1982). Whereas, the concept of CP is focused primarily on the customers (Youngdahl et al. 2003; Kelley et al. 1990; Goodwin 1988). In this sense, CP is a part of the overall co-production concept (Etgar 2008; Lusch et al. 2007). The term “co-creation” is more closely associated with value creation, especially in the domain of service-based business logics (Dong & Sivakumar 2017; Payne et al. 2008; Vargo & Lusch 2004). As Vargo and Lusch (2008, p. 7) state, “The customer is always a co-creator of value”, implying that value creation is interactional in nature.

The contemporary service-logic based understandings of value creation clearly state that sellers do not deliver value to customers (Grönroos & Voima 2013; Vargo & Lusch 2004). Rather, offerings – services, physical products,
or any combination thereof – are created through the integration and interaction of various resources, either solely by the seller or in conjunction with the customer (Vargo & Lusch 2004; Prahalad & Ramaswamy 2004). Customers create and realize value through the utilisation of and interaction with the resources (Kumar & Reinartz 2016; Ranjan & Read 2016; Woodruff 1997; Zeithaml 1988). For the providers, value is mainly generated from the compensation they receive in exchange for their contributions to creating and providing the resources, along with a range of other benefits (Burkert et al. 2016; Jacobson 2003; Möller & Törrönen 2003). Also, the studies clearly consider CP an integral part of value creation (Etgar 2008; Lusch et al. 2007). These theoretical insights underpin the conceptual foundation of this study.

The extant research conducted in the context of KIBS, or in overall B-to-B settings, provides contextual knowledge on CP and value creation for this study (see, e.g., Nätti et al. 2014; Lindgreen et al. 2012; Strambach 2008; Hertog 2000). This study mainly builds upon three strings of contextual knowledge. Studies that considered a service-based business logic in KIBS settings guided the application of the theoretical paradigms in the empirical investigation (see, e.g., Breidbach & Maglio 2016; Aarikka-Stenroos & Jaakkola 2012). Studies that focus on resource integrations and value creation in B-to-B settings provide a better contextual understanding on the accumulation of resources from different organizations, and the integration and interactions of those resources to create value (see, e.g., Ford & Mouzas 2013; Lindgreen et al. 2012; Håkansson et al. 2010). Studies that provide information on KIBS are useful in understanding various dimensions of these services, especially their definition, knowledge-intensiveness, production and delivery processes, and long-term nature and orientation (see, e.g., Nordenflycht 2010; Muller & Doloreux 2009; Löwendahl 2005; Miles 2005).

Based on these three literature domains, the key concepts and constructs used in this study are defined in Table 2.
Table 2  Key concepts and constructs of this study

<table>
<thead>
<tr>
<th>Concept/Construct</th>
<th>Definition</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Intensive Business Services (KIBS)</td>
<td>Business-to-business services produced and delivered based on professional knowledge, expertise, competencies, and other specialized resources. The services are mainly used in the customer organizations’ business processes</td>
<td>Nordenflycht 2010; Strambach 2008; Miles 2005; Kuusisto &amp; Viljamaa 2004</td>
</tr>
<tr>
<td>Service processes</td>
<td>Tasks, actions and activities involved in service production and delivery – here, knowledge intensive business services</td>
<td>Dong et al. 2014; Fließ &amp; Kleinaltenkamp 2004; Kelley et al. 1990</td>
</tr>
<tr>
<td>Services (or, service activities)</td>
<td>Outcome of the service process. That is, the specific service activities which are produced and delivered through the service processes</td>
<td>Vargo &amp; Lusch 2008; Lusch et al. 2007; Vargo &amp; Lusch 2004</td>
</tr>
<tr>
<td>Resource</td>
<td>A resource is a factor that carries economic or productive value and is of use to accomplish an activity</td>
<td>businessdictionary.com</td>
</tr>
<tr>
<td>Customer participation (CP)</td>
<td>Customer’s resource inputs to service processes, that is, to service production and delivery</td>
<td>Etgar 2008; Lusch et al. 2007; Bitner 1997</td>
</tr>
<tr>
<td>CP enhancement</td>
<td>Actions and activities geared towards facilitating timely inputs of appropriate and complementary resources from the customer into the service processes</td>
<td>Etgar 2008; Tax et al. 2006; Prahalad &amp; Ramaswamy 2004; Bettencourt et al. 2002</td>
</tr>
<tr>
<td>Value outcomes</td>
<td>Value created/generated for the recipient organization</td>
<td>Grönroos &amp; Voima 2013; Aarikka-Stenroos &amp; Jaakkola 2012; Lusch et al. 2007</td>
</tr>
<tr>
<td>Superior value outcomes</td>
<td>Improved or enhanced value outcomes created through service production, delivery and usage</td>
<td>Kumar &amp; Reinartz 2016; Payne &amp; Frow 2014; Ulaga &amp; Eggert 2006; Anderson &amp; Narus 1998</td>
</tr>
</tbody>
</table>
1.5 Structure of this dissertation

This dissertation comprises five chapters, and its structure is illustrated in Figure 2. After this first chapter, Chapter 2 lays the conceptual foundation of the study by accumulating the relevant theoretical knowledge from the existing literature. It begins with defining KIBS, analysing its key characteristics, and demonstrating the importance of CP in these services. Then, the participation of customer organizations in the service processes of KIBS is clarified.

![Figure 2: Structure of this dissertation](Image)
This subchapter is followed by a dissection of the concept of value – value for customers, providers, and that exchanged between the parties. The next section accrues the extant understanding on the possible value outcomes of CP in KIBS, and shows what is meant by CP enhancement and what is known of it. The chapter ends by developing an exploratory framework based on the accumulated knowledge, which is later used to assist the explorative empirical investigation.

Chapter 3 provide details of the methodology of this study. The chapter begins by discussing the explorative approach of investigation employed in the study, and goes on to describe the methodological choices and their justifications. The research method is broadly divided into two categories: systematic literature review, followed by case study. Details of the methodological processes are provided separately for both the literature review and case study. Based on existing assessment parameters, the last part of the chapter evaluates the study process as objectively as possible.

Chapter 4 comprises a summary of each paper. Each summary provides information in a succinct and coherent manner on the phenomenon studied, the purpose of the paper, and its findings. The theoretical and managerial implications of each paper are outlined, and the final paragraph of the summary further clarifies how the paper contributes towards answering the research questions.

The discussion section at the start of Chapter 5 develops the understanding of CP enhancement in KIBS for superior value outcomes. First, the overall purpose of the study is restated, and the research questions are answered in turn. In doing so, the researcher draws on findings and excerpts from the four papers that support this dissertation. The discussion section ends by developing a comprehensive framework on enhancing CP for superior value outcomes in KIBS. This is followed by drawing the theoretical and managerial implications of this study, and providing several suggestions for future research.
2 LITERATURE REVIEW

2.1 Knowledge intensive business services

Knowledge intensive business services (KIBS) have received increasing attention from academics, practitioners, and policy makers over the last decade or so (European Commission 2013; Muller & Doloreux 2009). It is commonly accepted that these services differ from more conventional and traditional services in multiple dimensions (Nordenflycht 2010). However, services that are considered as KIBS are diverse – from management consultancy to computer-related services. Hence, defining KIBS with a single definition is challenging and, generally, rather broad definitions are used. Miles (2005, p. 39) defined KIBS as “Services that provide knowledge-intensive inputs to the business processes of other organisations […].” Hertog (2000, p. 505) did not define the service activities, but rather provided a definition of KIBS providers: “private companies or organizations who rely heavily on professional knowledge, i.e. knowledge or expertise related to a specific (technical) discipline or (technical) functional-domain to supply intermediate products and services that are knowledge based.” Similarly, in their seminal publication, Bettencourt et al. (2002, pp. 100-101) defined KIBS providers as “enterprises whose primary value-added activities consist of the accumulation, creation, or dissemination of knowledge for the purpose of developing a customized service or product solution to satisfy the client’s needs.”

Analyzing the various definitions of KIBS put forward by researchers and policy makers over the years reveals some of its common characteristics (Nordenflycht 2010; Miles 2005; Bettencourt et al. 2002):

- The services are complex in nature, and are mainly provided to business customers.
- They are used in the various business processes of customer organizations to create value.
- Knowledge is the main form of input and output of these services. Thus, the main resources offered to customers are various forms of combined and integrated knowledge, though they may be accompanied by some tangibles.
- Service production and delivery are performed by personnel with formal and specialized training and education.
A KIBS firm can be characterized as a “knowledge accumulation system” that “accumulates, capitalizes and protects the knowledge derived from different service transactions” (Gallouj 2002). Thus, the development and expansion of KIBS are often manifested as “extreme examples of knowledge intensity” (Desmarchelier et al. 2013). The expansion of KIBS is also argued to be the “models for an increasingly knowledge-based economy” (Nordenflycht 2010). The services provided by KIBS firms are crucial to their customers in multiple ways (World Bank 2016; Nordenflycht 2010; Bettencourt et al. 2002). Restricted by their own knowledge deficiencies, lack of expertise, or shortage of other necessary resources, customer organizations often cannot overcome certain business-related challenges by themselves (Desmarchelier 2013; Nordenflycht 2010; Strambach 2008). Through the application of their knowledge, expertise, technical expertise, and other resources, KIBS providers help customers to overcome these challenges, thus contributing to their smooth and efficient business functioning (Santos & Spring 2015; Aarikka-Stenroos & Jaakkola 2012; Nordenflycht 2010). As Wood (2002, p. 994) argued, “[KIBS providers] often offer strategically significant technical or organizational knowledge that client staff do not possess, or could not exploit without consultancy support.”

In the context of KIBS, “to produce a service […] is to organize a solution to a problem (a treatment, an operation) which does not principally involve supplying a good. It is to place a bundle of capabilities and competences (human, technological, organizational) at the disposal of a client and to organize a solution, which may be given to varying degrees of precision” (Gadrey et al. 1995, p. 5). In doing so, in addition to domain-specific knowledge, KIBS providers use human and organizational capabilities (Trasorras et al. 2009; Ellram et al. 2008; Skjølsvik et al. 2007). According to Hertog (2002), to produce KIBS, six main types of activities take place from the provider’s side: diagnosis and problem clarification, expert consulting, brokering, experience sharing, benchmarking, and change agency.

In customer organizations, the specific needs, and thus the problems to be solved, often remain vague and blurry in the beginning (Aarikka-Stenroos & Jaakkola 2012). Thus, diagnosis and problem clarification denotes helping customers to identify and articulate their specific problems and needs (Aarikka-Stenroos & Jaakkola 2012). The second provider activity is expert consulting – to provide specific solutions to particular problems (Lowendahl 2005; Bettencourt et al. 2002). In doing so, the providers often apply experience sharing – what they have learned in similar situations from previous experiences (Bettencourt et al. 2002; Halinen 1997). Also, benchmarking – the process of recognizing “good practices” and maintaining comparisons with
them – is often part of the service process (Aarikka-Stenroos & Jaakkola 2012; Hertog 2000).

Another significant activity in service processes from the provider’s side is *brokering*: “putting different sources and users in contact across a wide range of services and resources” (Hertog 2000, p. 507). The provider’s ability to accumulate and integrate a wide range of resources is crucial to the effective production and delivery of these services (Macdonald et al. 2016; White & Badinelli 2012; Harrison et al. 2001). The provider’s activity, titled *change agency*, denotes the observation of a customer’s performance improvement through the use of the services and by providing feedback (Bettencourt et al. 2002). The sharing of experience by the service provider also plays a crucial part in their role as change agents (Løwendahl 2005; Hertog 2000).

However, as pointed out by multiple researchers, the production, delivery, and utilization of these services, and thus value creation, cannot be equated with the purchasing of various other standardized business services (see, e.g., Macdonald et al. 2016; Strambach 2008; Bettencourt et al. 2002). Even though the provider holds generic knowledge, experience, and other resources, the application of these resources and the conduction of service processes to solve customer-specific problems require contextualization (Nordenflycht 2010; Strambach 2008, Miles 2005). As Kuusisto and Viljamaa (2004, p. 283) commented, “In the KIBS-client interaction generic and localised expertise is combined […]”. The customer is often more aware and informed regarding context-specific issues; for instance, technical and experience-based knowledge, management know-how, best practices, etc. (Aarikka-Stenroos & Jaakkola 2012). Therefore, their input is essential in contextualizing this knowledge (Strambach 2008; Skjølsvik et al. 2007).

Consequently, without a customer’s input in service processes, the production and delivery of KIBS often do not reach the intended goals (Aarikka-Stenroos & Jaakkola 2012; Skjølsvik et al. 2007; Bettencourt et al. 2002). Moreover, value creation in KIBS requires intensive interactions between the customer and provider organizations (Wang et al. 2013; Strambach 2008; Skjølsvik et al. 2007). As Strambach (2008, p. 156) indicated, “formal and informal network relationships, references, reputation and long-term relationships together make up a key function as coordination mechanisms in interaction processes between KIBS and their customers.” Thus, CP influences the perceived value outcomes of KIBS for both the customer and service provider organizations (Aarikka-Stenroos & Jaakkola 2012; Strambach 2008; Skjølsvik et al. 2007).

Muller and Doloreux (2009) showed that extant research on KIBS can be broadly divided into two phases. In the first phase, papers published related to KIBS were mainly focused on highlighting the importance of this specific
sector in contemporary and knowledge-based economies (see, e.g., Miles 2005; Barras 1990). These early studies also drew attention to the specific characteristics of these services and stimulated subsequent research efforts (see, e.g., Kuusisto & Viljamaa 2004). The second and more recent phase of KIBS research has focused mainly on the aspect of innovation – the innovation process and patterns (see, e.g., Corrocher et al. 2009; Leiponen et al. 2006; Hertog 2000).

Hence, despite repeated emphasis by researchers on the importance of CP in KIBS and its potential for influencing value outcomes, not much research knowledge is available about these issues (Aarikka-Stenroos & Jaakkola 2012; La et al. 2009). Nevertheless, KIBS provide a useful empirical context to explore the enhancement of customer participation and the resulting value outcomes, especially due to the high volume of resource inputs needed from customers to produce and deliver the relevant services (Voss et al. 2016; Strambach 2008; Bettencourt et al. 2002). The resource inputs, along with intense customer–provider interactions, shape the service that is produced and delivered, as well as the value that can be created through it (Aarikka-Stenroos & Jaakkola 2012; Strambach 2008; Bettencourt et al. 2002).

2.2 Customer participation in KIBS

Customer participation is considered a focal point of services marketing research especially (see, e.g., Dong et al. 2014; Etgar 2008; Lusch et al. 2007; Prahalad & Ramaswamy 2004; Bitner 1997; Lovelock & Young 1979). Early researchers put forward both positive and negative perceptions regarding CP (Cf. Lovelock & Young 1979; Levitt 1972). While Levitt (1972) considered CP to be an interference by the customer in service processes, Lovelock and Young (1979) were among the first to attract attention to the possibility of creating superior value outcomes through CP – mainly in the form of improved productivity for the service provider. The early studies basically considered customers’ input of productive labor as their main form of participation (Lovelock & Young 1979; Chase 1978). Since then, in addition to marketing, the topic has received attention from various disciplines; for instance, strategic management (see, e.g., Chaitan 2010; Prahalad & Ramaswamy 2004), operations research (see, e.g., Tax et al. 2006), and human resource management (see, e.g., Hsieh et al. 2004; Manolis et al. 2001).

The importance of interaction both in service processes and value creation has been repeatedly emphasized by service marketing researchers (Grönroos & Voima 2013; Vargo & Lusch 2004). Similar to most other service contexts, CP is enabled and facilitated through provider–customer interactions. The
study by Strambach (2008) shows that in the context of KIBS, customer-provider interactions, facilitated by open and constructive dialogue between the parties, provide opportunities to analyze and understand each other’s needs and to appraise and conform resource commitments simultaneously. It also helps customer organizations to be more interactive, thus facilitating their synchronous and constructive engagement in service processes (Strambach 2008; Grönroos 2011; Prahalad & Ramaswamy 2004). Accordingly, in addition to enabling and facilitating the identification of complementary resources from the customers’ side as well as inducing the inflow of these resources into service processes, the act of interaction can be a source of value in itself due to its expansive nature and ability to generate social practices (White & Badinelli 2012; Grönroos 2011; Harrison et al. 2001).

In solving customers’ problems, the service provider’s accumulation of various resources and application of specialist knowledge, expertise, and competencies to rearrange and interact with those resources form the core of the production and delivery of KIBS (Aarikka-Stenroos & Jaakkola 2012; Skjølsvik et al. 2007; Løwendahl 2005). However, in doing so, the provider often finds that a part of the necessary resources, both intangible and tangible in nature, are possessed by the customer organizations (Bettencourt et al. 2002). These resources are generally tightly nested within the context of the services (Strambach 2008; Skjølsvik et al. 2007). Moreover, the customers’ organizational routines and procedures are crucial to the overall resource accumulation and integration procedures (Nordenflycht 2010; Hertog 2000). Therefore, active participation from the customer is crucial to the production and delivery of KIBS (Strambach 2008; Kuusisto & Viljamaa 2004; Bettencourt et al. 2002).

Participation by customer organizations may assume multiple shapes and forms (Strambach 2008; Bettencourt et al. 2002). It may start as early as their involvement in diagnosis and problem clarification activities (Aarikka-Stenroos & Jaakkola 2012). In the beginning of the service processes, often neither the service provider nor the customer have a clear understanding of the particular need to be addressed, and thus the problem to be solved (Aarikka-Stenroos & Jaakkola 2012; Lapierre 1997). Hence, significant efforts need to be made to accurately pinpoint the problems and service-solution needs to be developed (Bettencourt et al. 2002). Various inputs from customers can assist in doing so (Aarikka-Stenroos & Jaakkola 2012). As Aarikka-Stenroos and Jaakkola (2012, p. 17) emphasized, “customers possess much of the knowledge needed for problem solving, e.g. technological information, market insight, and project objectives.” Customers may express the issues they want to overcome, provide access to organizational routines, procedures, and business networks, and supply various tangible resources (Skjølsvik et al.
Knowledge inputs from customers may include “sharing information from the repositories of accumulated previous learning, ideas, creativity, and real-life situations […]” (Ranjan & Read 2016, p. 292). Customers may also share ideas, propose solutions, and predict future needs (Aarikka-Stenroos & Jaakkola 2012; Strambach 2008).

In producing services, KIBS customers often also input tangible resources; for example, information and computing infrastructure, production facilities, and access to supply chain channels (Breidbach & Maglio 2016; Strambach 2008). Customers can also participate in benchmarking with providers by complying with their instructions, supporting decision making, being involved in quality control, and providing constructive feedback (Strambach 2008). Moreover, CP can take the form of contributions to the development of service specifications, partial or complete substitution of service employees, and by acting as a catalyst for other customers to participate (Trasorras et al. 2009; Bettencourt et al. 2002). Personnel from the customer organizations may even develop social bonds with service providers, leading to more resilient relationships that can act as a safeguard against service failures (Santos & Spring 2015; Eisingerich et al. 2014). Extant studies clearly indicate that various inputs from customer organizations influence the value outcomes for both parties involved in service-based exchange (Breidbach & Maglio 2016; Keränen & Jalkala 2013; Aarikka-Stenroos & Jaakkola 2012).

2.3 Understanding value

Comprehending the concept of value and how value is created or formed has received attention from numerous marketing researchers (Grönroos 2008; Vargo & Lusch 2004; Woodruff 1997; Porter 1985). However, considering the wide-ranging research on the topic, the concept of value has been “one of the most overused and misused concepts in social sciences in general and in management literature in particular” (Khalifa 2004, p. 646). Often, value is considered as a trade-off among benefits and sacrifices (Flint et al. 1997; Biong et al. 1997). Some scholars, from the perspective of business markets, define value monetarily (Anderson & Narus 1998; Anderson & Sullivan 1993). Others use more inclusive value definitions that also capture non-monetary revenues, such as market position, competence and social rewards (Biong et al. 1997; Zeithaml 1988).

Marketing’s traditional research on value outcomes has had two main orientations: the assessment of a provider’s creation of value for its customers, and how customers perceive differences in the value of a provider’s offerings compared to those of its competition (Grönroos & Voima 2013; Vargo &
Lusch 2004). Meanwhile, for decades, the concept of customer value has maintained its foothold as an important tool for better understanding customers (Woodruff 1997) and has gained credence in contemporary marketing research, especially through service-based business logics (Grönroos & Voima 2013; Vargo & Lusch 2004). Nevertheless, although interconnected, value outcomes for customers and providers are not identical: the outcomes that render value to the customer are often not the same as what is of value to the provider (Cf. Burkert et al. 2016; Kumar & Reinartz 2016), and is certainly different from the value that is exchanged between the parties through market mechanisms (Cf. Porter 1985). Figure 3 provides visual illustration of the conceptual differences.

Value-in-exchange denotes the value that is exchanged between the customer and the provider in the market (Grönroos & Voima 2013; Vargo & Lusch 2004). Providers possess goods or capabilities to perform service activities that they transfer or apply to customers through permanent or temporary change of ownership or service conduction, and receive compensation in return (Burkert et al. 2016; Bagozzi 1975). The market enables parties to interact with each other and exchange ownership of their valuables or resources, or it can facilitate one party to use the expertise and valuables of the other (Vargo & Lusch 2004).

In the context of KIBS, the object of exchange becomes somewhat blurry, as it is as intangible as knowledge, which is often produced in collaboration with the customer as well (Aarikka-Stenroos & Jaakkola 2012; Bettencourt et al. 2002). The exchange process is facilitated through market mechanisms that
ensure orderly and fair trade and appropriate dissemination of price information (Vargo & Lusch 2004).

Value outcomes for providers denote the value they create and realize in return for their engagement in the production and delivery of services (Grönroos 2008; Ulaga & Eggert 2006). For providers, value outcomes are mainly generated through the revenue and subsequent profit they receive in exchange for the services performed (Burkert et al. 2016; Jacobson 2003; Walter et al. 2001). The primary condition for creating value outcomes for the provider’s organization is that the value-in-exchange received exceeds the costs involved in performing the service activities (Cf. Burkert et al. 2016).

In addition, in the context of KIBS, service providers can realize value in various non-monetary or intangible forms, including technological developments, market entry, and access to information and competencies (Muller & Doloreux 2009; Skjølsvik et al. 2007; Hertog 2000). Access to critical resources possessed by customers and other actors in the customers’ business networks can also render value to the KIBS provider (Desmarchelier et al. 2013; Lindgreen et al. 2012; Möller & Törrönen 2003). These non-monetary forms of value can be equally important to the service provider, if not even more important in some cases (Strambach 2008; Løwendahl 2005).

The concept of customer value or value outcomes for customers implies that for customers, goods or service activities are not of value per se (Kumar & Reinartz 2016; Vargo & Lusch 2004; Anderson & Narus 1998). In contrast to value-in-exchange, which focuses on the resources being exchanged, the concept of value outcomes for customers emphasizes the benefits they could realize through the use of these resources (Ranjan & Read 2016; Trasorras et al. 2009; Vargo & Lusch 2004; Anderson & Narus 1998). For example, the value of a car, for the customer, is not the car itself (the tangible and physical resource). Rather, the customer realizes the value through transportation. Value outcomes for the customer can also be generated in the form of convenience, satisfaction, social status, and so on (Cf. Ranjan & Read 2016; Grönroos & Voima 2013; Vargo & Lusch 2004; Zeithaml 1988).

Research on value outcomes for customer organizations in B-to-B markets has also been approached from the perspective of organizational relationships (Chaitan 2010; Barry & Terry 2008; Grönroos 2004). Grönroos (2000, pp. 24-25) stated, “Value for customers is created throughout the relationship by the customer, partly in interactions between the customer and the supplier or service provider. The focus is not on products but on the customers’ value-creating processes where value emerges for customers and is perceived by them [...]”. However, even though various salient dimensions of value in organizational relationships have become more apparent over the years (see, e.g., Ulaga & Reinartz 2011; Chaitan 2010; Barry & Terry 2008), relational
values in B-to-B contexts in general or KIBS in particular form only part of the overall value outcomes that organizations may create or realize (Cf. Skilton 2014).

2.4 Influence of CP on the value outcomes in KIBS

From a conceptual standpoint, studies on service-based business logics indicate that CP can influence all three types of value (Grönroos & Voima 2013; Vargo & Lusch 2004), starting with value-in-exchange. As the services are co-produced through the inclusion and integration of customers’ resources inputs, these inputs that customers provide should influence and shape certain characteristics and dimensions of the value-in-exchange (Lusch et al. 2007). Moreover, from the perspective of the customer, Ranjan and Read (2016, p. 292) have argued that the sharing of information leads to “reconciliation, shared inventiveness, and better expression and evaluation of needs.” The empirical study by Aarikka-Stenroos and Jaakkola (2012) confirms this argument and extends our understanding further by demonstrating that customers’ involvement in problem-solving processes results in superior value outcomes in the form of service activities that fit the customers’ exact needs.

Studies from consumer services contexts argue that against their resource inputs, customers may enjoy superior value outcomes through higher control and authority over the service process and a better relationship with the service provider (Auh et al. 2007; Tax et al. 2006; Bitner et al. 1997). In addition, individual consumers may enjoy economic benefits in the form of convenience, cost reductions, and discounts (Bitner et al. 1997; Kelley et al. 1990; Lovelock & Young 1979). Some of these value outcomes may also hold true in the context of KIBS.

Through providing inputs, customer organizations effectively share a part of the total resource pull needed to produce and deliver services – costs that have been incurred to produce and deliver them (Muller & Doloreux 2009; Miles 2005). Hence, a portion of that cost-saving can be enjoyed by the customer in the form of reduced service pricing (Bettencourt et al. 2002). In addition, some extant studies have indicated that customer–provider interactions through service processes render value to the parties involved (Barry & Terry 2008; Halinen 1997).

However, in contrast to the consumer services market, where the reduction of price is considered as one of the main forms of value outcome for individual customers, extant studies have indicated that reduced service pricing does not receive a strong emphasis in the KIBS market (Cf. Chaitan 2010; Håkansson et al. 2010). Two main reasons behind this difference with
consumer services market can be identified. First, the relatively small and concentrated nature of KIBS markets, both in terms of numbers of customers and providers, does not leave much room to maneuver with the pricing (Lindgreen et al. 2012; Möller & Törrönen 2003). Second, rather than being transactional, the parties generally engage in service processes with a much more relational approach (Andersen & Kumar 2006; Palmatier et al. 2006), effectively shifting some of the focus from immediate price impacts to longer-term orientations. Moreover, the development of relationships with service providers can be of value to customers (Grönroos 2011; Ulaga & Eggert 2006).

Existing studies do not provide any particular understanding regarding the value outcomes of CP in KIBS for providers. For KIBS providers, it can be predicted that, typical of B-to-B markets, the superior value outcomes of CP are generated mainly in the form of higher profit margins (Cf. Burkert et al. 2016; Jacobson 2003). By receiving customers’ resource inputs, service providers save costs on those resources that they would otherwise have to accumulate themselves (Cf. Liu et al. 2016; White & Badinelli 2012; Harrison et al. 2001). Hence, if providers are able to keep the prices of their services more or less constant, then the cost savings through CP should result in higher profits.

Studies from consumer contexts indicate that CP can directly influence productivity improvement (Etgar 2008; Tax et al. 2006; Prahalad & Ramaswamy 2004). If the same assumption holds true in the KIBS context, it will further contribute to superior value outcomes for providers. In addition, a better relationship with the customer, generated or enhanced by CP, can be a major value outcome for providers as well (Cf. Barry & Terry 2008; Ulaga & Eggert 2006). Similarly, providers may enjoy better loyalty from customer organizations resulting directly from interactions within service processes (Auh et al. 2007; Binks & Ennew 1997). Moreover, Bettencourt et al. (2002) argued that for KIBS providers, the accumulated value outcomes generated through CP from a number of clients often leads to unique competitive advantages that are difficult for competitors to emulate – itself a major value outcome of CP.

2.5 Extant knowledge on the enhancement of CP in KIBS

The shortage of extant research knowledge is a hindrance to developing a solid conceptual foundation for the enhancement of CP. Nevertheless, the preliminary understandings provided by existing studies are put together here to work as a springboard for venturing into an explorative investigation.
KIBS providers may support and facilitate customers’ resource inputs in multiple ways. The seminal study by Bettencourt et al. (2002) suggested that service providers may help customers enhance their participation by providing them with necessary training and education, role clarification, and organizational socialization. Training and education can be given by, for example, arranging regular workshops and “kickoff” meetings. Regarding role clarification, the authors stated that “the KIBS firm should take the initiative to enhance client role clarity by informing them of key responsibilities as well as their relation with the client’s definition of success” (Bettencourt et al. 2002, p. 118).

However, the study does not provide sufficient clarification regarding socialization of the customer’s organization. Nevertheless, the CP literature in a consumer context provides a clear definition of organizational socialization: “[a] process by which an individual comes to appreciate the values, abilities, expected behaviors, and social knowledge essential for assuming an organizational role and for participating as an organizational member” (Louis 1980, pp. 229-230). However, how to socialize business customers with the expectation that they will act and behave like “organizational members” of the service provider’s organization remains an open question.

The development and nurturing of relationships with customer organizations may be helpful toward inducing their participation in service processes. As Bettencourt et al. (2002, p. 117) stated, “Although we speak about client co-production, the reality is that co-production behaviors are performed by individuals engaged in interpersonal relationships.” Through developing quality relationships with customer organizations, service providers may find it easier to approach customers (Håkansson et al. 2010). This in turn can prove beneficial for providers in terms of expressing particular needs, thereby contributing toward a better identification of crucial and complementary resources that customers may provide in service processes (Chaitan 2010; Barry & Terry 2008).

Moreover, good quality relationships should generate trust and commitment on the part of the customer toward the provider and the service processes (Andersen & Kumar 2006). Subsequently, this will help the customer to share sensitive and critical information and other resources. Some studies have also indicated that dialogue between organizations engaged in knowledge-based service exchanges will facilitate better resource accumulation and interactions (Grönroos 2011; Payne et al. 2008). As the sharing of information is one of the most critical forms of CP in the context of KIBS, effective communication in the form of dialogue between the organizations involved in exchange should facilitate information inputs from the customers (Grönroos 2011; Prahalad & Ramaswamy 2004).
When it comes to the customer organizations’ own actions and activities to enhance their resource inputs, Aarikka-Stenroos and Jaakkola (2012) suggested that they should effectively engage in problem identification and solution development. Their engagement would influence the determination of the resources needed to conduct service processes, effectively helping them to participate properly through their own resource inputs. If there are influential persons inside the customer’s organization who spread vocal support for the KIBS project, doing so may also influence other personnel to participate (Bettencourt et al. 2002). Moreover, the customer’s willingness to “to accommodate the desires, approach, and expert judgment of the service provider” has been proposed as a catalyst for enhancing CP (Bettencourt et al. 2002, p. 108).

A couple of studies have considered a different approach; that is, how service providers can overcome shortages of resource inputs from customer organizations by themselves. The empirical study by Santos and Spring (2015, p. 85) showed that in service processes where customers are non-participative, providers may consider “preventive and problem-management strategies to counterbalance limited customer participation.” Skjølsvik et al. (2007) suggested a more drastic measure. They advocated that KIBS providers should serve the “best customers” – customers who are capable of providing necessary knowledge inputs. However, considering the relationship-oriented nature of B-to-B services paired with the relatively low number of customers and providers of KIBS in each market, it is unlikely that companies will serve only those customers with the highest degree of capabilities in terms of providing resource inputs in the service processes while discontinuing serving other customer organizations based on their relatively low level of participative performance.

2.6 Exploratory framework of the study

In this section, an exploratory framework has been developed based on the literature review (Creswell & Poth 2017; Blaikie 2010). The framework serves two purposes. First, it helps to summarize and organize the research knowledge from the reviewed literature. Second, it is useful for exploring the phenomenon in an organized and knowledgeable manner (Grbich 2013; Stake 1995). The exploratory framework is depicted in Figure 4, followed by further explanations.
Knowledge intensive business services are distinctive service activities performed to help customers overcome their specific business-related challenges (European Commission 2013; Muller & Doloreux 2009; Miles 2005). KIBS providers, through the accumulation and integration of various special and scarce resources (Desmarchelier et al. 2013; Nordenflycht 2010) – for instance, specialized knowledge, technical know-how, and managerial competencies – produce and deliver these services (Leiponen 2006; Bettencourt et al. 2002; Hertog 2000; Gadrey et al. 1995). However, a part of the necessary resources for conducting service processes successfully often remains under the possession of the customer organizations themselves (Strambach 2008; Bettencourt et al. 2002). These resources may include problem specifications (Aarikka-Stenroos & Jaakkola 2012), context-specific information needed to solve such problems (know-what) (Strambach 2008), and various tangible resources (Strambach 2008). Hence, participation from customer organizations – their input of resources in service processes – is often crucial for the successful conduction of such processes (Strambach 2008; Bettencourt et al. 2002).

As depicted in the framework, a customer’s inputs of complementary resources help to overcome the resource deficiencies of the service provider (Harrison et al. 2001), thereby contributing to the effective and efficient performance of service processes (Breidbach & Maglio 2016; White & Badinelli 2012). Hence, as illustrated in the dotted rectangle in the middle (Figure 4), a customer’s resources may directly influence the produced and
delivered service activities (services) (Lusch et al. 2007; Bettencourt et al. 2002). Accordingly, the arrows at the bottom indicate that participation from customers may impact the value outcomes for both customer and provider organizations (Lusch et al. 2007; Prahalad & Ramaswamy 2004; Bettencourt et al. 2002)

Especially for the provider’s organization, the major value outcomes of CP are generated through improvements in service processes (Grönroos 2011; Grönroos 2004; Vargo & Lusch 2004). In addition, facilitated by CP, service providers may realize value outcomes generated through the production and delivery of high quality services (Aarikka-Stenroos & Jaakkola 2012; Etgar 2008). The high quality of the services can improve customer loyalty, rendering further value outcomes for the KIBS providers (Cf. Auh et al. 2007). Customers, on the other hand, mainly generate superior value through the use of service activities (Grönroos 2011; Lusch et al. 2007; Vargo & Lusch 2004), as they achieve their intended objectives through the deployment of the services (Strambach 2008; Bettencourt et al. 2002). In addition, customer organizations may also receive multiple value outcomes already created during service production and delivery (Aarikka-Stenroos & Jaakkola 2012); for instance, the development of relationships with providers through frequent and intense interactions (Chaitan 2010; Andersen & Kumar 2006).

The literature review suggests that service providers may pursue various actions and activities to help facilitate their customers’ resource inputs. For example, they may arrange necessary training and education for customers in relation to their participation, provide precise instructions regarding the roles that customers are expected to play in the service process, and socialize customers organizationally (Strambach 2008; Bettencourt et al. 2002). In addition, engaging in active dialogue with customers can prove fruitful for enhancing their participation (Grönroos 2011; Prahalad & Ramaswamy 2004).

The limited number of extant studies also provides some sort of indication that the customer organizations’ own initiatives may also enhance their resource provision capabilities and actual resource inputs (Strambach 2008; Bettencourt et al. 2002). For example, customers may actively engage in problem identification and solution development processes at the early stages of KIBS projects (Aarikka-Stenroos & Jaakkola 2012). Also, having “advocates” inside their organizations who may spread positive information regarding the possible benefits of resource inputs may enhance the customers’ participation performance (Bettencourt et al. 2002). The understanding that both customer and service provider organizations may contribute to the enhancement of CP is indicated by the two top arrows in the framework.

Nevertheless, how exactly the organizations involved in knowledge-based service exchange perceive the value outcomes of CP is not well understood.
As this literature review chapter reveals, the very same challenge also exists regarding understandings on the enhancement of CP – appropriate details and insights are in short supply. Hence, going forward, this study explores these issues to generate deeper and more encompassing understandings and insights.

To perform the study, development of this exploratory framework through combining extant knowledge on CP, value creation and KIBS, and its application to perform the explorative investigation, is a conscious choice. In selecting the conceptual ground to conduct this study, the researcher has considered other options, too. For example, literature on strategic purchasing focus on purchases made by the customer organizations which may have long-term impacts on their profitability, growth, or position in the market (Cousins 2005; Chen et al. 2004). These literatures provide insights on the integration of customer’s and supplier’s resources to produce the final offering that can appropriately support the customer in reaching the strategic objectives (Chen et al. 2004). As KIBS often carry strategic importance, use of strategic purchasing literature to study the enhancement of CP in KIBS and the value outcomes that it generates was considered as a possibility (Ellram & Tate 2015).

However, after further scrutiny, the researcher understood that the strategic purchasing literature is more concentrated on how the customer can integrate the suppliers’ offerings in their own business to achieve strategic goals (Cousins 2005; Chen et al. 2004). In contrary, the focus of this study is to enhance contribution of customers’ resources in service processes to create the service offerings, so that both customer and provider organizations may create and realize superior value outcomes. Moreover, the strategic marketing literature is heavily focused on tangible products, and purchasing of services have received scant attentions (Ellram & Tate 2015). Hence, the literature was not deemed to provide a sufficient foundation for this explorative investigation.

Another conceptual lens that was considered for this study but later discontinued was “resource based view” (RBV) theory of firms. The theory states that firms that possess resources that are valuable, rare, inimitable and non-substitutable (VRIN) in nature can use the resources to create value and reach their organizational goals (Barney 1991). Hence, the researcher considered application of RBV to understand the inputs of customer’s complementary resources in service processes. However, further reading by the researcher showed that if VRIN resources are considered critical to value creation, then originations that control such resources may possess sufficient bargaining power that enables them to capture a disproportionate share of returns against their resource inputs (Skilton 2014).

This exploitation of organizational resources to capture excessive value is often considered unfair by the other actors in the supply chain (providers of
KIBS in this study) (Skilton 2014). Hence, it may hamper provider-customer collaboration in integrating customer’s resources in service processes to create and realize superior value outcomes (Ellram & Tate 2015; Skilton 2014). However, going forward, once the primary understandings are in place to enhance CP in B-to-B or KIBS settings, application of RBV will probably generate fruitful results to understand resource asymmetry between the customer and the service provider firms, and how they may complement each other’s resources while simultaneously reducing or even eliminating the risk of exploitation by one party.
3 METHODOLOGY

3.1 Choice of research methods

This study adopted explorative approach of investigation (Edmondson & Mcmanus 2007; Stebbins 2001). The extant research on enhancement of CP and its value outcomes especially in B-to-B contexts is rather thin, and there is a clear shortage of definitive and explicit research knowledge on these topics (Aarikka-Stenroos & Jaakkola 2012; Bettencourt et al. 2002). This deficiency meant that it was not possible to develop clear hypotheses or conceptual premises based on the extant knowledge and then to test them in real life (Blaikie 2010). Rather, the goal of the researcher was to delve into the phenomenon to create new understandings and insights on enhancement of CP to create superior value outcomes (Neelankavil 2007; Wrenn et al. 2007).

The explorative approach was particularly supportive for that goal, as it enabled posting open-ended inquiries based on open-ended data (Wrenn et al. 2007; Stebbins 2001). The researcher’s standing reflected the argumentation of Jupp (2006, p. 108), “The exploratory researcher does not approach their project according to any set formula. She/he will be flexible and pragmatic yet will engage in a broad and thorough form of research.” The explorative approach was also suitable in interpreting the data to identify patterns regarding the actions and activities needed for enhancement of CP and the superior value outcomes it may generate (Cf. Edmondson & Mcmanus 2007).

Along with the explorative approach, the methodological choices of this study were shaped by its purpose and the specific research questions (Creswell & Poth 2017; Gephart 2004). To conduct the study, the first logical choice was to analyze and understand the extant knowledgebase on CP, its enhancement and its value outcomes (Cf. Denyer & Tranfield 2009; Gabbott 2004). The researcher employed systematic literature review methodology to examine the state-of-the-art of the relevant literatures, and to develop conceptualizations and understandings necessary for the empirical examination (Booth et al. 2012; Mulrow 1994). The findings of the literature reviews are presented in Paper 1 and Paper 2.

Next, to understand the enhancement of CP to create superior value outcomes in KIBS, the researcher selected case study methodology (Creswell & Poth 2017; Yin 2012). This particular method was a good fit with the explorative approach of this study (Edmondson & Mcmanus 2007; Eisenhardt...
& Graebner 2007; Gephart 2004). It was suitable to investigate the inducement and interaction of customers’ resources in real-life contexts and the superior value outcomes that they generate (Edmondson & Mcmanus 2007; Halinen & Törnroos 2005; Eisenhardt 1989). Paper 3 and Paper 4 are based on the empirical study. Further information on the choices of research methods are provided next.

3.1.1 Rationale for systematic literature review method

Literature reviews can serve a number of scientific purposes, typically (i) to understand the importance of specific studies on a topic within its broader contexts, (ii) to grasp the connection between the studies within the same research area, (iii) to interpret the extant research from a fresh perspective and identify the existing research gaps, (iv) to detect and clarify contradictions within the existing studies, (v) to provide directions for future research, and (vi) to position an original study within the existing literature (Booth et al. 2012, p. 7). For this study, performing the literature reviews was advantageous to accumulate, synthetize and analyze the already available knowledge on enhancement of CP and its possible value outcomes (Gabbot 2004; Mulrow 1994). It also assisted the researcher in developing a deeper understanding of the research topic and to be better equipped to explore the empirical reality (University of Connecticut Library 2016; Fink 2010).

Several methods are available to conduct literature reviews, for instance, reviewing based on expert knowledge and experience of the researcher on a particular field (Green & Bowser 2006). However, reviews that are performed non-systematically are often subject to significant biases including identification, selection, synthesis and analysis biases (Booth et al. 2012, p. 18). Mulrow (1994) argued that the absence of a clear and systematic method leads to several methodological flaws, leading to biased conclusions. In contrary, application of a systematic method; which is a “explicit, and reproducible method for identifying, evaluating, and synthesizing the existing body of completed and recorded work produced by researchers, scholars, and practitioners” (Fink 2010, p. 44); provides a much objective evaluation of the literature.

Therefore, the researcher chose the systematic method to conduct the literature reviews to objectively examine and evaluate the extant knowledgebase (Booth et al. 2012; Denyer & Tranfield 2009). In reality, it meant identifying relevant scientific literature using a predetermined method, analyzing and evaluating them critically without any prejudice or bias, and reporting the findings as objectively as possible. Moreover, the method was beneficial for identification of contradictions and inconsistencies in the extant research
knowledge. This understanding was necessary to perform the succeeding empirical examination in knowledgeable manner (Denyer & Tranfield 2009; Mulrow 1994).

3.1.2 Rational for case study method

The researcher selected the case study method to perform the empirical investigation after carefully considering the available methodological options (Halinen & Törnroos 2005). According to Eisenhardt (1989, p. 534), the case study method is a “research strategy that focuses on understanding of the dynamics present within single settings”. It is suitable specifically to explore a case (or multiple cases) situated in their contextual setting through detailed, in-depth data collection and analysis (Creswell 2013). For this study, the case study method was selected for the following reasons:

- The method is suitable to extract and understand a wide variety of open-ended information, and thus matched the explorative approach of this study (Yin 2013; Halinen & Törnroos 2005).
- Addressing the purpose of this study required flexibility in terms of data collection from multiple sources and understanding the perspectives of a number of people on both sides of the service exchange. The methodology provided the necessary flexibility (Creswell & Poth 2017; Yin 2012).
- Case study methodology is often best suited to answering questions starting with “what” or “how” because it generates descriptive answers (Yin 2012). The study sought to answer questions like “How do customer and provider organizations involved in knowledge-based service exchanges perceive the value outcomes of customer participation?” and “How may customer and provider organizations enhance customer participation in knowledge intensive business services through their actions and activities?” Hence, the questions could be addressed best through case study methodology.
- Addressing the purpose of the study required contextual details, as the value outcomes of services are always context dependent (Lindgreen et al. 2012; Vargo & Lusch 2004). The literature review section (Chapter 2) indicated that the actions and activities required to enhance CP are context specific, too (Aarikka-Stenroos & Jaakkola 2012; Bettencourt et al. 2002). The case study methodology supports the collection of empirical data with rich contextual details (Yin 2012; Eisenhardt & Graebner 2007).
Beverland and Lindgreen (2010, 56) noted that “The value of case studies to business marketing theory is recognized in editorial missions of all three-specialist business-to-business (B2B) marketing journals (Industrial Marketing Management, Journal of Business and Industrial Marketing, and Journal of Business-to-Business Marketing)”. The long tradition of using case study methodology in B-to-B marketing research also influenced the choice of method.

The methodological descriptions of the literature reviews are presented next, followed by the case study, focusing here only on the key information. The exact particulars, for example, specifics of the key words used to search the relevant literature or description of the individual cases are available in the individual papers included in the Part II in this dissertation.

3.2 Conducting the literature reviews

Adopting a systematic method to conduct a literature review enables “a specific and reproducible method […] to identify, select, and appraise all the studies of a previously agreed level of quality (either to include all studies or only those that meet a minimum quality threshold” (Booth et al. 2012, p. 3). The researcher largely followed three sources of guidance: Booth et al. (2012), Denyer and Tranfield (2009) and Gabbott (2004). Following the guidelines, the reviews were performed in consecutive stages: (i) searching the literature, (ii) assessing the evidence base, and (iii) analysis and reporting. Figure 5 illustrates the stages, along with the activities involved in each stage.

![The Stages of Conducting the Systematic Literature Review](image)

Figure 5 The systematic literature review process applied in this study
3.2.1 Searching the literature

It was crucial to select the “base of enquiry” in an appropriate and focused manner to establish the study on a specific and recognized foundation (Booth et al. 2012). According to Gabbot (2004), the evidence base should be considered credible by the same scholarly community that contributed towards its creation. Therefore, the decision was made to review only articles published in international peer-reviewed journals. These articles provide recent updates on a scholarly field, are scrutinized by experts before being published, and – organized chronologically – shows how the field has evolved over time (Booth et al. 2012; Denyer & Tranfield 2009).

After deciding on the base of enquiry, the researchers identified the relevant articles to review. The following three leading electronic scientific databases were employed: Business Source Complete (www.ebscohost.com), Emerald (http://www.emeraldinsight.com/), and Sciencedirect (www.sciencedirect.com/). The researcher performed searches in all three databases using precise keywords combinations, for example: [customer participation], [“customer participation” AND “antecedents”], or [“customer participation” AND “management”].

The searches returned from dozens to hundreds of articles in each electronic database. The search results were recorded in an MS Excel file, which contained information regarding each of the identified articles on title, author(s), publication details including journal, year of publication, volume and issue number, article key-words, abstract, and the database where the article was located (Booth et al. 2012).

3.2.2 Assessing the evidence base

The second stage was to assess the evidence base, that is, to scrutinize and select the articles relevant to the scope of this study (Booth et al. 2012). In doing so, the first step was to identify and delete the duplicate entries, which appeared due to the presence of the same article in more than one database. Then, articles published in other languages, but used English words in titles or article key words, were removed due to limitations in the researcher’s language skill.

Next, following Booth et al. (2012), the evidence base was examined to determine the articles that fall within the focus of the study. The researcher examined the title and abstract of the articles, and if necessary, also the introduction and conclusion sections. Articles that fell outside the scope of the study were excluded. Thus, for Paper 1, only articles that provided some
degree of understandings and insights on conceptualization and value outcomes of CP were included in the evidence base. Moreover, articles that came through the keyword searches but had very different focus than this study were excluded, too. For example, in case of Paper 2, usage of the keyword combination (“co-production” and “management”) returned an article titled “Co-producing management knowledge” (Tranfield et al. 2004), which had a very different focus that this study: management of CP in service production and delivery. Therefore, the article was removed from the evidence base.

Once the assessments were completed, the researcher had a solid evidence base to analyze and synthesize containing relevant articles published in English in international peer-reviewed journals (Fink 2010; Gabbot 2004).

3.2.3 Analysis and reporting

The researcher started the analysis by arranging the articles in chronological order according to year of publications, and then reading from the oldest to the newest (Denyer & Tranfield 2009; Gabbot 2004). It helped to gain further familiarity with the literature and understand how the key concepts progressed and developed over time. The reading was also useful towards identification of agreements or disagreements over the key issues and the major terms used (Gabbot 2004).

Next, the researcher coded the contents of each article in relation to the questions posed by this study, for example, conceptualization of CP, resources that customers provide in service processes, and value outcomes and management of CP. Inductive coding was used in the process, that is, the assigned codes were not predetermined but based on the main themes of the texts and emerged through the coding process. Whenever texts or discussions related to the focus of this study were found, they were annotated and coded for message or content. (Booth et al. 2012; Denyer & Tranfield 2009; Gabbot 2004).

In the third step, the researcher categorized the codes and their associated texts. Similar codes were classified together into clusters, and the clusters were then grouped into higher-level categories (Moeller et al. 2013; Booth et al. 2012). The categories were organized in line with the main themes of the study, for example, customer inputs, antecedents, management approaches and value outcomes. The researcher compared the different categories with each other for consistent data classification. Then, the associated strips of texts under every category were analyzed to generate deeper insights on the subject under study (Moeller et al. 2013; Denyer & Tranfield 2009).

In the fourth and the final step, the researcher synthesized and reported the findings in a clear and succinct manner (Booth et al. 2012; Green & Bowser...
2006; Gabbot 2004). In line with the research questions posed by the review, the researcher synthesized the findings on multiple dimensions, for example, evolution of the concept of CP over time (Green & Bowser 2006). The synthetization was done critically rather than summarizing the findings and arguments based on their face value (Gabbot 2004). Contradictory or competing findings and arguments were identified and explained. This critical perspective ensured the reporting does not become a mere summary of the existing literature. The researcher was also careful to report in a clear, logical and structured manner, avoiding plagiarism and providing appropriate citations (Booth et al. 2012; Denyer & Tranfield 2009; Gabbot 2004).

Once the literature reviews were completed, the next step was to investigate the cases to search for answers that could not be found in the current knowledge base.

3.3 Conduction of the case study

The researcher created and implemented a multi-case research design. While a study that include multiple cases is often more difficult to execute than a single-case design (Yin 2012), the results derived from multiple cases generate more confidence in the findings and enable greater generalization (Yin 2013; Yin 2012). In addition, using multiple cases enabled examination of complementary facets of the main research question and thus to develop a multifaceted and holistic understanding regarding the topic under study (Eisenhardt & Graebner 2007; Eisenhardt 1989). In this study, each case was a specific knowledge-based service project between one customer and one provider organization (Yin 2013; Eisenhardt 1989).

3.3.1 Selection of cases

One fundamental assumption of case study methodology is that examining the context is essential to understanding the cases – for both their underlying theoretical explanations and managerial relevance (Yin 2012, Halinen & Törnroos 2005; Eisenhardt 1989). Therefore, it is crucial to select the cases carefully, as case selection may directly affect the degree and quality of understanding. As Seawright and Gerring (2008, p. 294) put it: “the chosen case is asked to perform a heroic role: to stand for (represent) a population of cases that is often much larger than the case itself”.

The research applied the purposeful sampling method to identify the cases that would best address the purpose of this study. This case selection method
is useful to “focus on particular characteristics of a population that are of interest” to answer the research questions (Lærd Dissertation 2012). Also, a detailed investigation by Piekkari et al. (2010) on the methodologies of the case-based studies in B-to-B marketing shows that purposeful sampling is considered best practice by researchers and often helps produce deep insights in studies taking an exploratory approach.

Seven possible cases were shortlisted. The following criteria were applied: the customer and provider organizations are involved in a knowledge-based service project, CP is considered crucial to the service processes and superior value outcomes, and rich data can be gathered through access to both sides of the service-exchange. The cases were also accessible within the practical limitations of the researcher, for example, time constraints and distances that needed to be travelled to collect data.

Next, the actual number of cases to study was reduced to three based on the “maximum variation sampling logic” (Lærd Dissertation 2012). The technique closely resembles theoretical sampling for case selection and is useful to capture a wide range of perspectives (Seawright & Gerring 2008). It was expected that different levels of CP would require different enhancement measures. Moreover, variations in the level of CP often reflect the value outcomes that the organizations perceive against customer resource inputs (Etgar 2008; Prahalad & Ramaswamy 2004). The researcher chose to make the final case selection based on the variation between the cases in terms of CP (Beverland & Lindgreen 2010). The three selected cases indicated a high, moderate and low level of CP respectively, and provided the opportunity to investigate and understand enhancement of customer recourse inputs and the value outcomes from a diverse range of perceptions. Using pseudonyms, general information regarding the cases are presented in Table 3.

Selecting cases through purposive sampling comes with certain limitations, as with any other case selection techniques (Beverland & Lindgreen 2010; Piekkari & Plakoyiannaki 2010). The cases may not be representative of the population, thus providing a partial reflection of real-life business situations. Moreover, it includes the risk that the judgements applied to select the cases are subject to the personal biases of the researcher (Lærd Dissertation 2012).

In this study, cautions have been applied to keep these risks at minimum. The researcher’s goal was not to develop sweeping generalizations based on the findings of the study. Rather, the goal was to create a holistic understanding on CP enhancement and the perceived value outcomes that it generates. In doing so, studying cases with different levels of CP, the value outcomes that they generate, and the enhancement measures required against each level of CP, were considered necessary. In real-life business situations, it is possible that the level of CP in the overall population is skewed, that most customer
organizations of KIBS participate to a high extent, or do not participate at all, or any level in between. Nevertheless, to reach the goal of creating a holistic understanding, it was necessary to study cases with different level of participations from the customers. The purposive sampling technique was supportive towards that goal.

In addition, cautions were put into place to keep the researcher’s bias at minimum. The generation of short list of seven cases at first, and then selecting three of them for the final study, helped eliminate some degree of case selection bias. Moreover, the final selection was not made based on the researcher’s perception regarding the degree of CP in those cases. Rather, it was done based on the information provided by representatives of both sides of the dyad in each case, thus further reducing researcher’s bias.

3.3.2 Data collection

Empirical data for this study have been collected in multiple ways. The main data collection method was face-to-face interviews (Fylan 2005). Company documents, internal records, archives, minutes of meetings, and press releases have been collected to gather further data (Warren & Karner 2010; Neelankavil 2007). Data have been collected from both the customers’ and suppliers’ side with the expectation that it would provide complementary information on enhancement of CP and the resulting value outcomes, and also help in data triangulation (Yin 2012; Warren & Karner 2010).

The interviews were semi-structured and open-response in nature to facilitate open, deep and versatile responses. This also allowed the interviewees freedom to share experiences and express opinions without specific limits being imposed by the researcher (Saunders & Lewis 2012; Warren & Karner 2010; Fylan 2005). An interview guide was used to assist the interview process, and contained bullet points on the topics to be discussed during the interview (Fylan 2005). The guide helped the researcher maintain focus on the actual topics and keep the interview on track, while at the same time allowed the interviewees to articulate their understandings and perceptions without being constrained by too specific questions, and to convey various contextual or other new details (Warren & Karner 2010; Fylan 2005).
Table 3  General information regarding the cases of this study\(^1\)

<table>
<thead>
<tr>
<th>Services studied in the case</th>
<th>Organization</th>
<th>Position in the Case</th>
<th>Main business area</th>
<th>Revenue</th>
<th>Number of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification and elimination of erroneous codes in customer’s software and providing</td>
<td>Telecom Ltd.</td>
<td>Customer</td>
<td>Telecommunication products, infrastructures and services</td>
<td>Over 10 billion euros</td>
<td>Around 50,000</td>
</tr>
<tr>
<td>improvement suggestions</td>
<td>Consultancy Ltd.</td>
<td>Service provider</td>
<td>IT services and business solutions</td>
<td>Over 10 billion USD</td>
<td>More than 300,000</td>
</tr>
<tr>
<td>Case 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design and development of cargo systems for large cargo ships</td>
<td>Builder Ltd.</td>
<td>Customer</td>
<td>Ship design and construction</td>
<td>Over 10 billion USD</td>
<td>Shipbuilder Ltd.</td>
</tr>
<tr>
<td></td>
<td>Engineering Ltd.</td>
<td>Service provider</td>
<td>Ship cargo system upgrade and management</td>
<td>More than 1 billion euros</td>
<td>More than 1,100</td>
</tr>
<tr>
<td>Case 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Financial software and services based on enterprise management software platform</td>
<td>Public Ltd.</td>
<td>Customer</td>
<td>Higher education and research</td>
<td>Around 200 million euros(^2)</td>
<td>Around 3,500</td>
</tr>
<tr>
<td></td>
<td>Finance Ltd.</td>
<td>Service provider</td>
<td>Specialized financial and personnel administration services</td>
<td>Around 10 million euros</td>
<td>Around 80</td>
</tr>
<tr>
<td>Case 3</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Pseudonyms have been used to maintain confidentiality regarding the actual companies

\(^1\) Data as of December 2016
\(^2\) Yearly expenditure budget
Purposive sampling was used to identify the interviewees appropriate for this study (Cf. Ulaga & Reinartz 2011). In developing the sample, personnel from both customer and provider organizations who were directly involved in the service projects, and could provide wide-ranging information regarding CP and the value outcomes were included (Creswell 2013; Yin 2012). In addition, as CP in the service processes involves personnel from various organizational hierarchies and business functions (Bettencourt et al. 2002), diversity along those two dimensions was maintained in the sample.

The interviews were conducted as the service processes progressed, and each person was interviewed once. In total, 33 interviews were conducted between April 2013 and July 2015, lasting from around 45 to 90 minutes. The sampling process ceased when the data saturation stage was reached, indicated by information redundancy and lack of newness in the data (Creswell & Poth 2017; Creswell 2013). 24 of the interviews were recorded using electronic voice recorder with permissions from the interviewees. For the other nine, extensive hand-written notes were taken as per the choice of the interviewees. All the interviews had been conducted with the condition of maintaining confidentiality and anonymity (Creswell 2013). Further details regarding the interviews are provided in the appendix.

Additional data were collected from multiple sources. Archival data that were related to provider-customer collaborations were retrieved from multiple sources, including memoranda, press releases, tender documents, and project diaries (Creswell & Poth 2017; Stebbins 2001). Participant observation was used in the second case through attending various company meetings and seminars relevant to this study (Creswell 2013; Yin 2012). In addition, whenever allowed, the researcher collected company documents including cost calculations, internal presentation slides and minutes of meetings (Yin 2013; Neelankavil 2007).

3.3.3 Data analysis

Data analysis was a time-consuming, detailed and thought-provoking process. It started during the data collection period, simultaneously to conducting the interviews and collecting additional data (Creswell 2013; Yin 2012). The researcher listened to the recorded interviews, transcribed them, talked informally with the interviewees later, read the relevant literatures, and discussed various dimensions of the collected data with his colleagues, all of which helped in thinking, contemplating and gaining a better understanding of the data (Warren & Karner 2010).
After conducting every few interviews, the recordings were transcribed, read and compared with the interview guide (Creswell 2013). In case of any confusion, the interviewees were contacted for further clarifications. While transcribing the interviews, only the relevant data were transcribed. Non-relevant discussions, ranging from contemporary political situations to weather conditions were left out. Transcription of the interviews resulted in around 240 pages of texts. Next, data from secondary sources were added with the transcripts mainly based on complementarity. For example, when press releases from a provider were found regarding the possible benefits of their collaboration with the customer, that information was added to the relevant part of the interview transcript.

Following the transcriptions, data analysis progressed through three stages: coding and assignment of keywords, categorization, and comparison (among the categories, within the categories, and within the cases) (Creswell & Poth 2017; Yin 2013). In parallel to the exploratory approach of this study, the coding was mainly inductive in nature (Gephart 2004). However, the conceptual framework of this study, in addition to the knowledge gained through the literature reviews, has undoubtedly influenced the researcher’s thought process and assisted in assigning the codes in a focused and knowledgeable manner.

The codes were generated based on the main issues and topics as they appeared in their contextual settings, and were assigned to strips of texts in line with the purpose of this study (Creswell 2013; Yin 2012). For example, whenever an interviewee from the customer’s side mentioned any challenge they face in participating in the service process, it was coded accordingly. Similarly, any instance of the value outcome of CP was coded based on the perspective of the respondent.

Once the coding was completed, the codes, along with their associated strips of texts, were formed into groups based on their regularities and commonalities, and then further clustered into higher-order categories (Moeller et al. 2013; Saunders & Lewis 2012; Warren & Karner 2010). For example, every code and its associated texts on “cost savings” were formed into a group. The same was done for codes about “increased sales” due to CP. Then, the groups that provide insights on the economic value outcome of CP were combined under the higher-order category “value outcomes in terms of economic benefits”.

Finally, the researcher performed multiple comparisons (Creswell 2013; Yin 2012). First, the texts associated with every category were scrutinized for consistency. Then, the cases within each category were compared to identify inter-case similarities and differences. Next, the categories were compared with each other to ensure they were consistent and distinctive, and that each
category provided some new understanding in relation to this study (Cf. Moeller et al. 2013). At this final stage, inconsistencies identified through the comparisons were noted, and then clarified with the respective interviewees (Creswell & Poth 2017; Yin 2012). Also, a report was prepared on the findings and sent to one representative from each case company. Feedback received from the delivery of the reports added some further insights, and also helped in data triangulation.

3.4 Evaluation of the study

3.4.1 Evaluation of the literature reviews

There is a scarcity of clearly developed means to evaluate literature reviews. Hence, by combining the literature review standards mentioned in Booth et al. (2012), Green and Bowser (2006) and the literature review guide provided by University of Connecticut, USA (2016), the following criteria have been used to evaluate the literature reviews of this study: reliability, objectivity and organization.

3.4.1.1 Reliability assessment

Reliability denotes to selection of reliable and trusted evidence base. In this study, the evidence base and thus the information to review were selected in a systematic manner based on specific standards – through key word based searches in large scientific databases (Booth et al. 2012; Gabbot 2004). In addition, only articles published in peer-reviewed international academic journals were included. International journal articles are considered the highest source of scientific and reliable information on a particular topic. They are grounded in scientific examination and are accompanied by solid conceptual explanations, and go through rigorous scrutiny by qualified scientists before being published (Booth et al. 2012; Gabbot 2004).

The decision to review only articles, published in English, imposed certain restrictions on the scope and extent of the evidence base. Extant knowledge present in any other language or form of publication (conference papers, books, doctoral dissertations etc.) were left untouched. Nevertheless, within this specific boundary, the researcher avoided imposing his individual preferences and analyzed an objective evidence base that incorporated the most relevant and scientifically accepted literature on a particular topic. Thus, the
literature reviews of this dissertation can be considered reliable within the consideration of these limitations.

3.4.1.2 Objectivity assessment

Objectivity of a literature review denotes that the study is free from evidence or information bias. For this study, the systematic review method was valuable to clearly identify and present the literature pool and to provide transparent descriptions of the review process. The findings came from trusted sources together with proper citations. Moreover, the information presented in the reviews can be easily verified.

The literature reviews clearly demonstrated proper analysis and presentation of complementary and contradictory findings and propositions. In addition, the evidence base of the study is auditable – and actually has been audited and used by Dong and Sivakumar (2017) – another indication that the reviewer’s conclusions regarding the extant knowledge are grounded on the data retrieved through the review process, and “not an argument fabricated to support a prior conclusion” (Booth et al. 2012, p. 23). The study also provided clear and logical explanations of rationale and the contribution of current evidence base.

3.4.1.3 Organization assessment

The third important evaluation criterion of a literature review is clear organization, outline and presentation of the findings. For this doctoral dissertation, the included literature reviews adhere to clear and logical structures. In Paper 1, first the development of conceptualization of CP is clearly presented in chronological order. Then, the value outcomes of CP are demonstrated with appropriate categorizations – first divided between the customer and the service provider, and then into the negative and positive value outcomes.

In Paper 2, an organizational frame is illustrated and presented in the beginning of the findings section. It clearly shows the position of CP in its nemonomological net and is useful for the reader to follow the presentation of the findings. However, it must be noted that the evidence bases of Paper 1 and Paper 2 contained more than 150 articles each. Accumulating and presenting the findings in the limited space provided by international journals were not easy tasks. In doing so, many vivid descriptions were lost, incorporation of which would have provided more illustrative details to the reader. Nevertheless, as exceeding the maximum allowed length set by the publication outlets
was not an option, looking from another perspective, it also contributed towards coherent and succinct presentation of the findings.

### 3.4.2 Evaluation of the case study

Many perspectives exist on evaluation of qualitative research, as a range of assessment dimensions has been developed over the years. Creswell (2013) shows that these perspectives include usage of dimensions which, for example, reflects quantitative equivalents (Lincoln & Guba 1985; LeCompte & Goetz 1982), application of interpretative and post-modern perspective (Angen 2000), synthetizations or combination of multiple perspectives (Whittenmore et al. 2001), or use metaphors such as crystals (Richardson & St. Pierre 2005).

For example, LeCompte and Goetz (1982) – in their efforts to apply comparable and qualitative equivalents of quantitative counterparts from experimental and survey based studies – have advocated four evaluation dimensions, namely internal validity, external validity, reliability and objectivity. Lincoln and Guba (1985) used more or less the same assessment dimensions through application of alternative terms that apply more to naturalistic axioms: credibility, transferability, dependability and confirmability. On the other hand, Angen (2000) adopted an interpretative and post-modern perspective, and proposed using “ethics” and “substance” to evaluate qualitative studies. Richardson and St. Pierre (2005) used the metaphor of a crystal, thus advocating terms like growth, change, alternation, external reflection and internal refraction to evaluate qualitative studies.

The primary dimensions that have been used to evaluate this empirical study are “validity” and “reliability”. These two dimensions cover most of the aspects put forward by the earlier perspectives, and hence largely provide an appropriate assessment of empirical studies based on qualitative methods, especially the case studies (Creswell & Poth 2017; Creswell 2013).

#### 3.4.2.1 Validity assessment

Validity denotes the precision of the research process and the credibility of the presented findings (Noble & Smith 2015; Golafshani 2003). The validation dimension is most commonly operationalized through eight evaluation parameters, which are: prolonged engagement and persistent observation; triangulation; peer-review or debriefing, negative case analysis; clarifying researcher bias; member checking; rich and thick description; and external audits (Creswell 2013; Lincoln & Guba 1985). These evaluation parameters
are synthesizing in nature, and thus combine the crucial characteristics of the previously developed assessment criteria. At the same time, they are relatively concrete in nature compared to the somewhat abstract and generalized criteria proposed by the earlier researchers, and hence are simple to apply and execute (Creswell 2013).

In assessing the validity of a qualitative study, not all the eight evaluation criteria need to be applied. Creswell and Poth (2017) recommended qualitative researchers should apply any two of the criteria to any given study. This researcher has applied three: triangulation (Creswell 2013), member checking (Glesne 2014; Lincoln & Guba 1985), and peer-review or debriefing (Creswell 2013). These criteria are some of the most commonly used to assess validity in case study research, are practical, and less resource-intensive to apply (Whittenmore et al. 2001; Creswell 2013).

Triangulation refers to collection and corroboration of data from different sources or to cross-checking data from different points (Glesne 2014; Lincoln & Guba 1985). In this empirical study, the researcher performed triangulation in a conventional manner (Creswell & Poth 2017; Creswell 2013). Secondary data were collected from multiple sources, for example, company websites, press releases, minutes of meetings, presentation slides, and participant observation (Golafshani 2003; Riege 2003; Stake 1995). Next, these secondary data were contextualized and compared with the interviews. Any discrepancies identified through this corroboration process were noted, and addressed to the case companies for further clarification (Noble & Smith 2015; Yin 2013; Stake 1995).

Member checking denotes the researcher’s solicitation of the participants’ views on the data interpretation and the reported findings (Glesne 2014; Lincoln & Guba 1985). The technique involves taking the findings of the study back to the participants for their judgement on the accuracy (Noble & Smith 2015; Creswell 2013). To perform member checking, the researcher prepared a written report on the findings, and delivered the document to representatives of each of the case companies (Whittenmore et al. 2001). All six representatives were highly involved in the phenomenon, with a deep and broad understanding. The reports were discussed with the representatives face-to-face or over the phone (Creswell 2013; Yin 2012).

During these discussions, some representatives asked for further clarifications, as the use of “academic language” by the researcher sometimes created confusion and misunderstandings. After receiving clarifications, the representatives of all six case companies agreed with the reports, and that the findings represent the cases well. Moreover, they offered some further suggestions and insights regarding the cases (Noble & Smith 2015; Riege 2003). If the suggestions and insights were consistent with the analysis of the previously collected
data, they were incorporated (Golafshani 2003; Whittenmore et al. 2001). In case of any disagreement or mismatch between the understanding and interpretation of the representative and the findings that were derived from the data analysis, further clarification was requested and received, from either the representatives or the interviewees, which helped in validating this study (Golafshani 2003; Riege 2003; Whittenmore et al. 2001).

Peer-review or debriefing enhances validity of the investigation through external checking on the appropriate design and execution of the research process (Creswell 2013). For this study, peer-reviews have been conducted at multiple levels and stages. The researcher has presented the study regularly both in international conferences and at research seminars arranged by the Department of Marketing and International Business at Turku School of Economics (Riege 2003; Whittenmore et al. 2001). The presentations included information on theoretical perspectives, methods used, findings, and the conclusions drawn. Comments received from these seminars and conferences – both critical and constructive – have been useful to improve the study (Golafshani 2003; Whittenmore et al. 2001). In addition, the draft manuscripts have been sent to senior and experienced researchers within the research community. Various comments and suggestions received from those researchers were immensely helpful in not only improving the reporting. They also enabled new perspectives from which to look at and understand the data, present the findings, and draw conclusions (Noble & Smith 2015). Also, the papers which have been published in international peer-reviewed journals have undergone extensive and intense review processes.

The researcher’s doctoral thesis supervisors acted as reviewers throughout the entire course of the doctoral study (Noble & Smith 2015; Golafshani 2003). They were regularly briefed on the advancement of the research, including the specific research questions, the theoretical lenses and methods applied, progress on data collection and analysis, the researcher’s interpretation of the findings, and the presentation of the findings. They regularly reviewed any manuscripts written, and provided comments and suggestions. They asked challenging questions, made sure that the researcher had appropriate rationale to justify his research-related decisions and actions, provided guidance and suggestions whenever necessary, and even allowed to catharsis at times. Hence, it can be claimed with confidence that sufficient peer-reviewing and debriefing have been conducted for this empirical study.
Reliability of a qualitative study denotes that if other researchers repeat the research operations and procedures, they will reach similar findings (Golafshani 2003; Riege 2003). In other words, reliability is defined as “the extent of findings can be replicated assuming that, for example, interviewing techniques and procedures remain consistent” (Riege 2003, 81). Assessing the reliability of a qualitative study specifies stability and consistency in the research process (Noble & Smith 2015; Riege 2003).

Assessing the reliability of a case study is challenging, as “even if researchers were concerned to assure that others can precisely follow each step, results may still differ” (Riege 2003, p. 81). Nevertheless, several techniques are available to enhance the reliability of case studies, for example, providing details of theories and constructs, appropriate recording of actions and observations, mechanical data recording, development of case study database, systematic data analysis, and peer-reviewing (Riege 2003; Lincoln & Guba 1985; LeCompte & Goetz 1982).

All of these suggestions have been incorporated and implemented to maintain the reliability of this empirical study. A full account of theories and conceptualizations that have been applied to analyze, understand, and explain the phenomena has been presented transparently to the reader (Noble & Smith 2015; Riege 2003; LeCompte & Goetz 1982). Moreover, to enhance reliability, interviews conducted to collect empirical data have been recorded whenever permitted by the interviewee (Riege 2003). In other instances, extensive hand-written notes have been taken and saved (Golafshani 2003; Riege 2003). Also, the researcher took notes based on the observations of the cases (Noble & Smith 2015; LeCompte & Goetz 1982). At the end of the data collection procedure, all the gathered data were compiled, organized and saved in a “case-study database” (Lincoln & Guba 1985). The collected data have been analyzed in a structured and systematic manner, which also improved the reliability of this study (Golafshani 2003; Riege 2003).

Use of peer-reviewing, which plays crucial roles in ensuring the validity of a case study, also enhances reliability, especially when the methodological choices and decisions are scrutinized and suggestions for improvement made by other researchers (Noble & Smith 2015; Riege 2003; LeCompte & Goetz 1982). As mentioned earlier, this study has received criticisms, comments and improvement suggestions throughout the research process, a large part of which were directed towards methodological improvements (Riege 2003). The researcher carefully collected and considered all the comments, looked to overcome the shortcomings, and incorporated the improvement suggestions.
Based on the above assessments, a certain degree of confidence can be had in the design and execution of the case study meeting the required quality criteria – that it is valid and reliable. Thus, the case study provides a clear and logical analysis and explanation of the phenomena, and has been tested and clarified repeatedly before finally being reported in this doctoral dissertation (Noble & Smith 2015; Golafshani 2003; Riege 2003).
4 SUMMARY OF THE PAPERS

4.1 Summary: Paper 1


Customer participation (CP) in the creation of offerings has been widely investigated within multiple research domains, including marketing, management and operations research. The content and scope of the concept is scattered in range and rather diverse definitions are used. A number of studies investigated various individual value outcomes of CP, but a combined understanding is missing. Hence, the purpose of this literature review is to enhance understanding of the conceptualization and value outcomes of customer participation in the creation of offerings.

This study employs a systematic literature review methodology. It locates existing relevant articles published in international peer-reviewed journals from electronic scientific databases. The relevant data are examined and synthesized and the findings and contributions are evaluated. The presented results permit drawing conclusions on what is known and what remains to be understood. 163 articles are reviewed in total, of which 126 studies (77%) focus on consumer contexts, 9 (6%) consider B-to-B markets, and 24 (15%) are neutral.

The findings of the study show that in conceptualizing CP, the very first studies published in the 1970s and 1980s focused on the effects of customer’s involvement in the service production systems, generally from the sellers’ perspective. The conceptualization gradually evolved to include a wide-range of customer roles and behaviors. Customers may play the roles of partial employee, co-producer, decision maker or quality evaluator. Customer behaviors that can influence the service processes and thereby the value outcomes are preparation, relationship building, information exchange, quality assurance, and quality assessment. Taking a step forward, several authors even argued that the extent of CP extends beyond the service processes. It involves customers’ inclination to learn, experiment, and active engagement with sellers through dialogue, collaboration and co-development. These developments led to the notion that CP enables customers co-produce both tangible
and intangible resources that they integrate into their consumption or usage process to accrue value.

The extant literature point out various value outcomes of CP mainly in the individual consumer contexts. This study accumulates and presents the value outcomes in two categories, for the sellers and for the customers. The seller may accrue economic-, relationship- and innovation-related values. The economic values include increased productivity, greater repurchase and referrals, lower price sensitivity, better brand image and faster service recovery. The relationship values translate into customer satisfaction, enhanced loyalty and trust, positive evaluation, word-of-mouth and enriched two-way communications. Innovation and development related values consist of enhanced service quality, better customization, improved invention and commercialization of new offerings. CP may also result in negative value outcomes for the sellers through increased job stress for the front-line employees. Moreover, the customers may transform into competitors by attaining sufficient knowledge and expertise necessary to produce the service.

The customers generate value outcomes in the form of increased control and empowerment over the service processes and attainment of desired characteristics that they want in the offerings. Without CP, these benefits are difficult or even impossible to attain. Customers may also receive economic value in the form of convenience, cost reductions and discounts. In addition, CP often enhance their various skills and networking capabilities. However, in reality, the distinction between the value outcomes for sellers and customers can become blurred, as the same outcome may be of value to both the parties.

The final section of the paper presents various crucial knowledge gaps in extant literature. It provides detailed suggestion for future research in terms of conceptualizations of CP, contextuality, perspective, customer-to-customer interactions and methodology. It also provides some useful guidelines for the managers based on the accumulated knowledge.

This article contributes towards answering research question 1 and 2. It is not confined within the context of KIBS. Rather, it provides fundamental understandings on the focus and scope of CP based on extant literature, and distinguishes between the notions of CP and value outcomes. Even though majority of the reviewed articles are focused on consumer contexts, the review provides some preliminary understandings regarding the possible value outcomes of CP.
4.2 Summary: Paper 2


Taking the first article as the starting point, *the purpose of this study is to provide an integrated understanding of current research knowledge on customer participation management, and to propose a rich agenda for future research*. Hence, while the focus of the first literature review is on conceptualization and value outcome of CP, this paper mainly focuses on the various management approaches put forward by the extant literature. It employed a systematic review method to provide a transparent and dependable evaluation. The review process was similar to the first article. The study examines 181 articles published in international peer-reviewed journals.

The study places CP management within the broader nomological network of CP constructs: antecedents, customer inputs, management approaches, and outcomes. After presenting the current state of knowledge on the other three constructs, it provides detailed analyses on the CP management approaches. The extant studies have addressed the topic from three perspectives: human resource management (HRM), operations management, and marketing.

Studies from the HRM perspective consider that the customers’ behavioral goals become parallel to the employees by contributing resources and performing the service production and delivery tasks. Thus, participating customers resemble employees of the firm. Managers can transfer and apply existing employee management methods and techniques to the customers to increase CP. Aside from few exceptions, the extant studies with the HRM perspective does not provide contextual details or specific managerial tools or guidelines. Rather, they address the issue of CP management at conceptual levels.

The studies from operations management perspective focus on improving customers’ operation and functioning in service processes. They suggest that service providers should develop and deliver detailed, supportive and easy-to-follow plans regarding the expected customer inputs, and should assist the customers to follow and execute the plans. The studies focus on concrete customer inputs and actions. They advocate examining and solving specific participation-related problems and offer clear managerial guidelines.

The studies from Marketing perspective mainly focus on the various roles played by the customers vis-à-vis the providers in the service processes. They propose that customers often play the roles of, for example, worker, buyer,
beneficiary or outcome of the service processes. These studies argue that for effective CP management, providers should understand the importance of the customers’ roles and extend support to the customers to perform those roles appropriately. However, these studies are largely limited to defining and categorizing the customer roles with suggestions to support them, but lack concrete recommendations in terms of managerial methods and techniques.

This article provides a detailed and rich agenda for future research. The agenda is divided into multiple focus areas, for example, antecedents, outcomes, and management of CP. It provides specific research questions against each focus area. The paper offers important understandings to the managers regarding the application of different management methods examined in academic research.

This article contributes towards answering the second and the third research questions. The existing understandings on CP management work as a stepping-stone to advance towards generating deeper insights regarding enhancement of CP in B-to-B settings. Moreover, the detailed analysis on the value outcomes of CP was beneficial to perform the empirical investigation in an educated and knowledgeable manner.

4.3 Summary: Paper 3

Mustak, Mekhail: Customer participation in knowledge intensive business services: Perceived value outcomes from dyadic perspective. The paper is under review in an international peer-reviewed journal. Earlier versions of the paper have been presented in 13th International Research Conference in Service Management 2014, La Londe les Maures, France and Naples Forum on Service 2015, Italy.

In knowledge intensive business services (KIBS), the service providers generally own and apply domain-specific knowledge, expertise and other resources to solve customers’ problems. In addition, the customer organizations often need to supply context-specific information, knowledge and other resources for successful production and delivery of the services. Therefore, in KIBS, customer participation (CP) is considered crucial for value creation for both the customer and provider organizations.

For the appropriate allocation and integration of customer resources in service processes, it is necessary to understand how both the customer and the service provider organizations involved in knowledge intensive business services perceive the value outcomes of CP. The purpose of this study is to
empirically examine the perceived value outcomes of customer participation in KIBS from a dyadic perspective.

This study investigated three cases, each of which was a specific KIBS project between a customer and a provider organization. Empirical data were collected from both the sides of the dyads mainly through interviews, which were supplemented with additional secondary data. The data were then analyzed by the coding and assignment of keywords, categorization, and comparison.

The perceived value outcomes of CP emerge gradually as the service processes progress. They can be grouped into four distinct but interrelated categories: functional, financial, relational and strategic values. The study also identifies the individual value components within each value category, and shows the differences in value perceptions between personnel from various levels of organizational hierarchies.

At the beginning of KIBS processes, both customers and providers focus on various functional improvements. For the customers, the perceived functional values can take the form of customized services, familiarity with complex service features, ease of use and proper fit of the services with the other business operations. The providers mainly perceive the functional values as positive changes in the service processes, for instance, improved productivity of the service personnel. As the service processes advance, the value perceptions expand to include the financial benefits resulting from CP – cost savings, increase in revenue, increase in profit margin, or in any combinations of these outcomes. However, no instance of reduction in prices of the services was found.

The findings of the study reveal that the positive influence of CP on formation and development of provider-customer relationships is perceived as another major value outcome. The relationships can form and develop both at organizational and personal levels, and may continue even after the services cease. In addition, perceived value outcomes can be generated in the form of various strategic benefits. The strategic values are not confined within the timespan of the service processes but are generated over much longer timeframes. For the providers, the strategic benefits include industry insights, customer lock-ins, creating new and superior value propositions, and acquisition of new customers. The customers perceive strategic value outcomes as improved market positions and opportunity to concentrate on core business area.

This study is one of the first empirical examinations on the perceived value outcomes of CP in KIBS and adds real-life knowledge. The dyadic perspective taken by the study uncovers perceptual resemblances and dissimilarities in terms of individual value components within each value category, thus
providing much deeper insights in each value category. Moreover, the study clearly pinpoints and exhibits how employees from different organizational hierarchies may put different level of emphasis on specific value categories.

This paper contributes towards answering the first and the second research questions. The customer organizations informed the value outcomes that they perceive against their resource inputs. The providers revealed the customer resources that they receive and integrate. These understandings are useful towards answering the first research question. Moreover, the findings support answering the second research question on the perceived value outcomes of CP in KIBS.

4.4 Summary: Paper 4

Mustak, Mekhail: Enhancing customer participation in knowledge intensive business services. Initial concept of the study and its conceptual grounding have been presented earlier in American Marketing Association Servsig Conference 2012, Helsinki, Finland and European Marketing Association Conference 2013, Istanbul, Turkey.

Paper 3 demonstrates that customer participation (CP) results in multiple perceived value outcomes in knowledge intensive business services (KIBS). Enhancement of CP is beneficial towards both customer and provider organizations. However, the extant studies are predominantly performed in the context of consumer services. For a variety of reasons, including differences in perspective, interests involved, actions prescribed, and other contextual factors, these knowledges is difficult to transfer and apply in KIBS. Therefore, the purpose of this study is to empirically investigate the enhancement of customer participation in knowledge intensive business services.

This exploratory study draws on the extant knowledge on CP, inter-organizational resource integration and business-to-business relationships. It investigates three cases using the same dataset as in Paper 3. Empirical data have been collected mainly through in-depth interviews using a semi-structured interview guide. Supplementary data have been accumulated from company websites, meeting minutes etc. The data have been analyzed by the coding and assignment of keywords, categorization and comparison. Findings show that enhancement of CP in KIBS requires application of specific actions and activities at each phase of the service processes.

In the first phase when the service processes are initiated, three types of actions and activities can enhance CP. First is the customer’s involvement in identifying the problem and developing the solutions. Second, both customers
and provider organizations need to identify the potential value outcomes of CP and communicate that information to their personnel. Third, both the organizations should look to reduce various risks and uncertainties associated with the KIBS projects, for instance, fear of job loss.

In the second phase, when the services are implemented, the establishment of operational guidelines and communication procedures facilitate effective resource flow and interactions between the organizations. Appropriate training and education in relation to the services along with development of relationship and trust between the two organizations enhance CP.

In the third phase, various inter- and intra-organizational conflicts may erect major roadblocks stemming the flow and integration of customer resources. Resolution of those conflicts facilitates and significantly enhances CP. In addition, regular check-ups and application of corrective measures is essential to enhance CP at this final phase.

These enhancement measures can be parallel and iterative, may start at one stage and then continue towards the next stage(s), and some may repeat multiple times. As one of the first empirical studies on the topic, this paper reveals the step-by-step nature of CP enhancement in KIBS. It shows the simultaneous interconnectedness and heterogeneity between the different phases of the KIBS processes, demonstrates the divergent challenges, and presents the enhancement measures. The paper concludes with guidelines for managers and a proposal for future research directions.

This paper contributes to answering the first and the third research questions. The first research question handles the nature and scope of CP in KiBS. In this paper, investigating CP enhancement generated insights on the resources that customer provide in the service processes of KIBS, thus helped in addressing the first research question. Moreover, the findings of the paper formed the foundation to answering the third research question regarding CP enhancement.
5 CONCLUSION

5.1 General discussion

Knowledge intensive business services (KIBS) are crucial for the sustainability and growth of contemporary knowledge-based economies. Not only do they help other businesses to overcome their knowledge deficiencies and various business challenges, they are also themselves sources of employment, innovation, and growth. However, even though KIBS providers possess specialized knowledge and technical expertise, their customer organizations are often in possession of various context-specific knowledge and other resources that are indispensable in the production and delivery of the services. Thus, value creation in KIBS is characterized by intense interactions between the customer and service provider organizations, and CP in KIBS processes is of critical importance to create superior value outcomes.

Similar to any other business, the creation of value is at the core of KIBS. However, the distinctive dependency on CP influences the value outcomes in KIBS to a great extent. Appropriate and timely provisions of resources from the customers support the successful conduction of service processes and the value outcomes that can be accrued. On the other hand, a lack of necessary inputs from the customers can directly hamper the service processes, leading to sub-optimal value outcomes. Hence, the enhancement of CP is highly important for creating superior value outcomes.

Moreover, the customer’s provision of resources can also be useful for overcoming various challenges thrown by recent market conditions; for example, the erosion of the advantage of geographic proximity due to the advancement in information and communication technologies, or the challenge associated with the development and production of service components in highly technical and complex solutions for the customer’s organization. However, extant scientific investigations on how to enhance CP – in B-to-B services in general and in KIBS in particular – are surprisingly limited.

Given the opportunity for value creation through resource inputs by customer organizations, the purpose of this study was to investigate the enhancement of customer participation for superior value outcomes in knowledge intensive business services. In achieving this purpose, the researcher first systematically reviewed the existing literature on the conceptualization of CP and its management. Next, the perceived value outcomes of
CP and its enhancement were empirically investigated through the study of three cases. In this study, each case was a specific knowledge-based service project between one customer and one provider organization. The cumulative understandings, generated based on the literature reviews and the empirical study, in relation to the purpose of this study are discussed next.

The first research question posed by this study was “How do customer organizations participate in the services processes of knowledge intensive business services?” Paper 1 provides an objective analysis of how the conceptualization of CP – the way researchers construct their conceptual understanding of the studied phenomenon – has developed over time. The paper shows that the initial concept of CP was mainly focused on the customer’s substitution of the service personnel of the provider. Thus, the “labor” supplied by the customer was considered as their main form of resource input. Nevertheless, over the years, the concept of CP has broadened in extent and scope. As shown in Paper 2, a group of studies even considered various customer behaviors – for instance, exchange of pleasantries or support to fellow customers – as forms of CP. This broadening of the concept is also captured in Paper 1, as it states (p. 349): “conceptualization of customer participation, which started with the notion of customers’ interference in service production activities [...] has ultimately evolved to consider customers as integral creators of all kinds of resources for value creation.”

In this study, a resource is defined as “a factor that carries economic or productive value and is of use to accomplish an activity”. The enhanced conceptualization and understanding from the literature reviews, combined with the findings of the empirical study (Paper 3 and Paper 4), give insights into the resources provided by the customers in the service processes of KIBS. Business customers may provide three categories of resource inputs in KIBS processes, as illustrated in Figure 6: (a) information and knowledge, (b) ownership and task performance, and (c) tangible resources. The requirement and necessity of each category of resources are context-dependent.
As shown in Figure 6, the first group of inputs – information and knowledge – comprise various types of information related to KIBS services; for instance, contextual details, business processes, market information, etc. This group also includes both codified and tacit knowledge. These inputs are used in the service processes in multiple manners, including problem identification, problem solving, and implementation. Research has previously highlighted the importance of the customer’s information inputs in KIBS (see, e.g., Aarikka-Stenroos & Jaakkola 2012; Bettencourt et al. 2002). Through these findings, this study provides clarification regarding the customer’s information inputs and enhances these understandings further.

In addition, from the perspective of research knowledge, the findings of this study highlight the importance of “resource complementarity” in KIBS. The information and knowledge owned and applied by the service provider are generally domain-specific. The similar resources owned by the customer are context-specific. When integrated, they complement each other in developing and producing service solutions and thus solving customers’ problems. A number of examples of this type of resource input can be found in the empirical study, including the sharing of ideas regarding possible solutions by Telecom Ltd. or the provision of transaction-related information by Public Ltd.

Another type of crucial input from the customers is their undertaking of ownership of various service processes and their performance of diverse tasks related to service production and delivery. This finding partially reflects the earlier studies performed in the context of consumer services, where
researchers have repeatedly highlighted the “customer’s supply of labor” as one of the main forms of participation (see, e.g., Bendapudi & Leone 2003; Bitner et al. 1997; Lovelock & Young 1979). This study shows that in the context of KIBS, customer organizations often undertake ownership of various tasks crucial to the service processes. For example, as was observed in Case 1, once the provider organization, Consultancy Ltd., identified initial errors in the software, they provided this information to their customer, Telecom Ltd. The customer took charge to fix the errors and re-run the software, and reported back to Consultancy Ltd. for further checking, thus effectively taking ownership of crucial tasks related to the service processes. Another example of this type of CP is the primary updating of financial transactions by Public Ltd. in the enterprise management database.

The third type of customer input are the tangible resources that it contributes. Earlier studies have largely overlooked the importance of these resources in service processes and value creation in KIBS. However, even in KIBS, where the main offering being exchanged is as abstract as complex and sophisticated knowledge, the customer’s input of tangible resources is often indispensable in service processes. These tangible resources can comprise a wide range of forms. Examples from the empirical study include Consultancy Ltd.’s use of Telecom Ltd.’s computing infrastructure or Engineering Ltd.’s access to Builder Ltd.’s testing facilities. Without access to these resources, it would be much more challenging for KIBS providers to successfully conduct and complete service processes.

The issue of “resource complementarity” also helps to understand the resources that are usually not required from the customer organizations in the service processes of KIBS. Generally, KIBS providers possess the domain-specific resources, i.e. generic resources that are commonly required to conduct service processes in the particular field that they operate. For example, in Case 2, the service provider, Engineering Ltd., possessed the necessary knowledge on structural design and development of standard cargo systems. They also had technical expertise and software under their possession. Similarly, in Case 3, the service provider Finance Ltd. possessed the enterprise management software platform that formed the foundation of performing the financial and personnel administration services. Thus, in both the cases, input of generic resources was not required from the customer organizations. Rather, they contributed resources that were mainly necessary for contextualization of the service processes and the resulting service activities.

Extant studies have indicated that CP influences the creation of superior value outcomes for both customer and service provider organizations. As shown in Paper 2, the placement of CP in its nomological net provides a clear
visual illustration of this issue. However, even though value creation lies at the heart of marketing, various shortcomings in the existing knowledge base prevent a clear understanding regarding the value outcomes of CP in KIBS. Therefore, taking the arguments put forward by service-based business logics into consideration – that value outcomes can be best understood from the perspective of the beneficiary – the second research question posed by this study was “How do customer and provider organizations involved in knowledge intensive business services perceive the value outcomes of customer participation?”

The literature reviews show that extant studies on the value outcomes of CP can be categorized as “for the sellers” and “for the customers.” As found in both Paper 1 and Paper 2, these extant studies mainly focused on consumer services and suggested convenience, cost reductions, and discounts, along with customization and a better relationship with the provider, as the main value outcomes for individual customers (see, e.g., Tax et al. 2006; Bitner et al. 1997; Ennew & Binks 1996). They also indicate that service providers may enjoy value outcomes in the form of increased efficiency and productivity, higher customer satisfaction, increased perceived service quality, lower price sensitivity, and higher repeat purchase behaviors by the customers (see, e.g., Dong et al. 2014; Auh et al. 2007; Hsieh & Chang 2004; Bowers et al. 1990). Important to note here is that many of these value outcomes are not based on the perception of the beneficiary, but on the researchers’ own assumptions (Tax et al. 2006; Lovelock & Young 1979). Hence, the proposition that “Value is always uniquely and phenomenologically determined by the beneficiary” (Vargo & Lusch 2008, p. 7) is often not reflected in these studies.

The findings of this study complement the earlier literature – both service-based business logics and literature on CP and value creation in KIBS – to a great extent. Moreover, the study adds empirical understandings and contextual details to the largely conceptual argumentations put forward by previous studies. Results of the study reveal that inducement and integration of customer resources lead to a range of perceived value outcomes for both customer and provider organizations. These perceived value outcomes can be divided into four categories of value: functional, financial, relational, and strategic value. For the customers, the perceived functional value outcomes denote the reception of customized services, familiarity with complex service features, ease of use, and appropriate fit of the services in their organizational procedures. The providers perceive the functional value outcomes mainly as various improvements in their service processes; for instance, improved productivity of service personnel. The perceived finance-related value outcomes surface through either cost decreases, increases in revenue, enhanced profit margins, or any combination of these outcomes.
CP has positive impacts on the formation and development of provider–customer relationships, which is perceived as one of its major value outcomes by both organizations. Last but not least, providers especially perceive that CP results in various strategic value outcomes, including industry insights, customer lock-ins, the creation of new and superior value propositions, and the acquisition of new customers. Against their resource inputs, customers perceive superior positions in the market and the opportunity to concentrate on core competencies as main strategic value outcomes.

A deeper insight on how CP may influence the creation of superior value outcomes can be generated through a closer look at the empirical findings of the study (Paper 3 and Paper 4) combined with the understandings generated through the literature reviews. Superior value outcomes are created through both the service processes and the resulting service activities (services), which can be juxtaposed in a sequential manner. In addition, a customer’s resource inputs also render superior value by positively influencing various organizational functions. Thus, customer and provider organizations involved in knowledge-based service exchanges may perceive superior value outcomes of CP in three different manners:

1. Value associated with service processes
2. Value associated with the production and delivery of better services
3. Value associated with the improvement of organizational functions

This view is portrayed in Figure 7.

![Figure 7](image)

**Figure 7** Value outcomes of customer participation in knowledge intensive business services
First, various superior value outcomes during service processes may emerge through the customer’s active engagement in service production and delivery. One example is the customer’s gaining of insights into the application and usage of complex services, which can help it to extract superior value through service deployments. Or, for the provider, value associated with service processes translates directly into both functional (e.g., productivity improvement) and financial (e.g., decreased costs) value outcomes. Another, for both providers and customers, value may emerge as the formation of relationships through regular interactions between the organizations, which may make it easier to approach each other with queries, information, or suggestions, a typical and crucial need in KIBS.

Second, as the customer’s resource inputs improve service processes by removing resource scarcity, the production and delivery of better quality services result. Through the application and use of these better quality services, customers are able to effectively reach their intended goals, thus realizing superior value. Providers can appropriate value associated with the production and delivery of better services through increased revenue, profit, and an established customer base.

Third, the enhancement of CP may directly influence and improve various business functions, leading to the creation of superior value outcomes. For instance, from the customer’s side, the efficient deployment of KIBS may directly enhance its own production function, effectively leading to improved productivity. Similarly, from the provider’s perspective, higher interaction frequencies enhance relationships with customers or help them to obtain deeper insights into customer needs and the development of novel solutions, effectively creating a positive impact on the marketing function of the organization. Thus, organizations on both sides of the service dyads may use the opportunities associated with improvements of these various organizational functions to create and realize superior value outcomes.

The next logical step was to investigate the enhancement of CP in order to create and realize these value outcomes for both customer and provider organizations. The third research question of the study addressed this issue by asking “How may customer and provider organizations enhance customer participation in knowledge intensive business services through their actions and activities?”

Extant studies on CP management were mainly performed in the context of individual consumers, as was found in the literature review (Paper 2). These studies have addressed the topic from the perspective of three research domains: human resource management (HRM), operations management, and marketing (Mustak et al. 2016). However, these perspectives and the associated tools and techniques put forward by these studies are barely
applicable in KIBS settings due to a variety of reasons, including complexity, interorganizational power distance, and both theoretical and methodological deficiencies.

In KIBS, the enhancement of CP requires initiatives and actions from both customer and service provider organizations, as was found in Paper 4. The paper shows that various context-specific actions and activities are needed to remove the barriers against resource provisions, integrations, and interactions. These barriers may be present (a) inside the customer organization, (b) inside the provider organization, or (c) at their interaction interface. Paper 4 also reveals the collaborative actions and activities required to remove these barriers and thus ensure efficient and on-time resource flow from the customer’s side.

Several specific actions and activities can be pursued to enhance CP by both the customer and service provider organizations (Paper 4). Some of these actions and activities take place within the boundaries of the customer or provider organization, whereas others are pursued by the organizations together. This study shows that CP enhancement is processual in nature. The enhancement measures need to follow the specific stages of the service processes to create the most fruitful results.

A combined processual framework for the enhancement of CP for superior value outcomes is proposed in Figure 8, followed by further explanations. The framework was developed by combining the findings of Paper 4 along with the understandings generated by answering the second research question.

As the findings of Paper 4 show, at the initial phase of the service process, the customer and service provider organizations should detect the problem to be solved and develop the solutions jointly. In doing so, they can identify the resources necessary to successfully complete the service process, deficits in the service provider’s resources, and the complementary resources that can be supplied by the customer to overcome such resource deficits. Simultaneously, within their own organizational boundaries, both organizations can identify the potential value outcomes of CP and disseminate information to their personnel – in support of provision of resources by the customer, and receiving of resources by the service provider.

As the service process continues, during the implementation phase, the customer and service provider work together to improve the customer’s capability to provide the required resources. As the findings of Paper 4 show, necessary training and education to enhance the customer’s capabilities related to participation can be arranged. Also, improvements in interaction and resource transfer mechanisms from both sides can facilitate the provision of resources. Simultaneously, the joint efforts to establish and develop mutually beneficial and trusted relationships should positively influence resource provisions. In addition, the customer and service provider should focus on
their sole activities geared toward CP enhancement. The customer needs to advocate for active participation and resolve the obstacles against resource provisions inside its organizational boundaries. The provider should increase its means of reception and integration of the resources provided by the customers. They also need to promote an organization-wide culture supportive of CP.
Figure 8 Combined framework for the enhancement of customer participation for superior value outcomes
The findings of Paper 4 show that as the service process moves toward the final phase – and even when the service process has been settled and the regular and efficient resource transfer and integration has been established and even become the norm – both organizations should regularly check for deviations and implement corrective actions to maintain efficient resource flow and integration. Also, as shown in the framework, open and clear communication throughout the service processes is of great importance for the identification, transfer, and effective assimilation of synergistic resources.

Based on the understandings derived from the second research question, it is argued via the framework that the enhancement of CP will result in superior value outcomes in the form of improvement in service processes, the production and delivery of better services, and positive impacts on various business functions.

5.2 Theoretical contributions

This dissertation enhances current conceptual understandings on the enhancement of CP and its value outcomes in multiple manners. Extant studies on CP enhancement and value creation, both conceptual and empirical, are highly fragmented and were published in a range of journals from various disciplines with wide-ranging foci and scopes. Hence, the knowledge is quite scattered, and it is generally challenging for academics and practitioners to gain a holistic understanding of the relevant topics. The dissertation contributes toward overcoming these challenges by locating the relevant scientific articles, analyzing them critically and systematically, and presenting the analyses in a comprehensible manner to the reader, thereby facilitating a more coherent understanding of the topics.

The literature reviews included in this dissertation also present prevailing scenarios in terms of publication outlets, methodologies applied, temporal dimensions, and contextual differences, further helping academics to scientifically position their current and future studies (Booth et al. 2012; Denyer & Tranfield 2009). The understandings provided by the literature reviews on how conceptualizations of CP have developed over time and which customer actions and activities are considered as CP in contemporary research are crucial for further theory development (Cf. Etgar 2008; Lusch et al. 2007; Prahalad & Ramaswamy 2004). Another important theoretical contribution generated by the literature reviews (Paper 1 and Paper 2) is the clear analysis of how existing literature on CP management has approached the topic from three different perspectives, as well as succinct presentations of the arguments put forward by each perspective.
Previous studies have conceptualized CP in various ways, from the customers’ provision of productive labor in service processes (Lovelock & Young 1979) to their supply of information and knowledge (Skjølsvik et al. 2007). This study, building on both literature review-based (Paper 1 and Paper 2) and empirical study-based papers (Paper 3 and Paper 4), enhances this understanding in the context of KIBS. It provides clear categorizations regarding the three types of resource inputs provided by customer organizations in KIBS processes. Findings of the study (Paper 3 and Paper 4) add to the current theoretical knowledge base in multiple manners. Being exploratory in approach, the study is among the first to explore how the value outcomes of CP are perceived by the customer and provider organizations simultaneously. As reviewed in Chapter 2 of this dissertation, Aarikka-Stenroos and Jaakkola (2012) previously argued that joint problem solving between the customer and provider organizations leads to value creation. This study further clarifies their findings by clearly showing how joint problem solving positively influences the enhancement of CP, resulting in superior value outcomes for both the customer and provider organizations.

The dyadic perspective to understand value outcomes contributed towards for conceptual clarifications on the topic. Previous studies based on service-based business logics have argued for differentiation between the concepts of value for the supplier, value for the customer, and value-in-exchange (Grönroos & Voima 2013; Payne et al. 2008; Vargo & Lusch 2004). The findings of this study complement these arguments, showing that from a dyadic perspective and in the context of KIBS, even though the value categories resulting from CP are similar for the organizations on both sides of the dyad, the individual value components within each category often differ. Thus, differences between the various value concepts become much more apparent to the reader through the understanding of the specific value outcomes (Cf. Kumar & Reinartz 2016; Vargo & Lusch 2004; Zeithaml 1988). Moreover, the application of a dyadic perspective contributes to the current theoretical knowledge by revealing the perceptual similarities and differences between the customer and provider organizations involved in knowledge-based service exchanges.

The empirical study also helps to comprehend the processual nature of CP enhancements and their value outcomes. Rather than applying static measures (Cf. Bettencourt et al. 2002), the findings clearly demonstrate that the enhancement of CP requires situation- and time-specific actions and activities from both the customer and provider organizations as the service processes progress. Similarly, the value outcomes of CP also unfold over time and become more inclusive alongside the advancement of the service processes (Cf. Prahalad & Ramaswamy 2004). In addition, this study also contributes
contextual knowledge in multiple manners; for example, by showing the specific value outcomes of CP in the context of KIBS that may differ significantly compared to other service contexts (Santos & Spring 2015; Skjølsvik et al. 2007; Løwendahl 2005). In addition, while considering CP, previous studies have been highly focused on knowledge inputs (Muller & Doloreux 2009; Strambach 2008; Miles 2005). This study extends understanding by demonstrating the importance of the customer’s other resource inputs – taking ownerships of service process-related tasks, performing them, and providing tangible resources.

The study is useful for distinguishing the concepts of CP and value creation, as well as for understanding the connection between the two, thus further complementing the extant literature (see, e.g., Dong & Sivakumar 2017). Prominent researchers have shown clear distinction between production of offerings (KIBS in case of this study) and creation of value (see, e.g., Grönroos & Ravald 2011; Lusch et al. 2007). Grönroos and Ravald (2011, p. 12) developed a conceptual model that illustrates co-production of offerings and co-creation of value as situated in the sphere of interactions between the actors involved. The model is further enhanced and elaborated in Grönroos and Voima (2013). However, in general, in literature on service-based logics of marketing, the relationship between creation of services and the value outcomes that can be generated through usage of those services have been often somewhat vague and blurry (Dong & Sivakumar 2017). The framework developed in this study (Figure 8) is helpful to clarify this connection in relation to CP – how enhancement of CP results in better service offerings that helps to create and realize superior value outcomes to both customer and provider organizations. Moreover, this study, through this introductory essay and Paper 3, provide more fine-grained insights to the content and scope of the value outcomes.

The combined processual framework (Figure 8) contributes toward the generation of a holistic understanding of CP enhancement through actions and activities from both sides of the service-based exchange. The framework strengthens our comprehension that CP in KIBS processes does not generate value outcomes only after the services are delivered and used (Cf. Aarikka-Stenroos & Jaakkola 2012). Rather, in addition to the value outcomes generated through production and use of the services, the customer’s active involvement can result in value outcomes throughout the service processes, and can even positively influence various organizational functions. The framework also establishes the linkage between enhanced CP and superior value outcomes, thereby portraying an integrated picture of the topic and addressing the purpose of this study coherently.
5.3 Managerial implications

Several managerial implications of this study can be drawn. Not only can the dissertation assist managers of both customer and service provider organizations in understanding the importance of CP, it can also provide concrete suggestions about how to enhance CP in order to create superior value outcomes. Based on the study, the following suggestions are offered to managers.

For customer organizations, the study offers a clear picture for managers regarding the importance of their resource inputs in the successful production and delivery of KIBS. In addition, it helps illustrate how these resource inputs directly influence the creation of superior value outcomes. While selecting KIBS providers, the customer’s organization should analyze the specialties, expertise, and resources that the providers possess. Having a clear understanding regarding the KIBS providers’ resource base will help the customer select the most competent providers. Moreover, these analyses will help them determine the complementary resources they will need to provide to the service processes for successful service production and delivery. Doing so may ensure that their own resources are complementary with those of the providers, and also create synergies through combinations and interactions.

While taking part in KIBS processes, customers should encourage their own personnel to be interactive with providers and offer appropriate resource contributions as necessary. In doing so, the development of organizational cultures that are supportive of active engagement in KIBS processes would be beneficial. In addition, encouraging and supporting their personnel to actively engage in service processes and take ownership of various related tasks may also be beneficial to customer organizations in creating superior value outcomes.

Simultaneously, this study also sought to draw managerial attention to the possibility that providing resource inputs to KIBS processes necessitates active consideration of possible long-term negative impacts. The risks include the passing of critical resources, including sensitive business information, to competitors if they are served by the same provider. Moreover, by overcoming their own resource shortcomings through customers’ resource inputs, providers may boost their capabilities for enhancing their offerings in the market and eventually become competitors of the customers themselves. Hence, while contributing resources to KIBS processes, caution is necessary.

Similar to its benefit for customer organizations, this study also offers suggestions for KIBS providers by helping managers to improve their comprehension regarding the importance of CP in service processes and how it helps create superior value outcomes for the service providers themselves. Moreover, KIBS providers may also understand the perceptual differences that
exist between them and customer organizations regarding the value outcomes of CP. Understanding the value outcomes from the customers’ perspective is critical for the providers, as doing so will be helpful in convincing the customers to provide resource inputs by communicating the potential benefits from their perspective; benefits that will resonate better with their goals.

KIBS providers should actively try to enhance their own capabilities to successfully receive and integrate customers’ resources in service processes. In doing so, active efforts are necessary to remove the barriers to the inflow and integration of customers’ resources inside their own organizations. In addition, similar to the suggestions for customer organizations, the development of organizational cultures that are open and supportive of customers’ resource inputs would be beneficial for enhancing CP and thus creating superior value outcomes.

5.4 Suggestions for future research

Despite the contemporary interest in marketing academia on CP and its relationship with value creation, research particularly in the context of business services remains at a nascent stage. Hence, various research attempts are necessary to advance current knowledge to a sufficient level of maturity.

From a theoretical perspective, research on the enhancement of CP and value outcomes lacks the explicit application of particular theories and is rather dependent on conceptual frameworks developed by combining various previous studies. To advance pure theoretical knowledge and better understand the phenomenon, it is necessary that future studies adopt and apply specific theoretical lenses to analyze and investigate the phenomenon. For example, the application of a “resource-based view” (Barney 1991; Wernerfelt 1984) would be helpful for understanding resource accumulation, complementarity, and interactions; whereas the “knowledge-based view” (Grant 1996) would be appropriate for studying knowledge-heterogeneity between firms and their successful integration. In addition, through the application of “organizational culture theory” (Denison & Mishra 1995), it would be possible to better understand the development and nurturing of organizational cultures supportive of CP.

Several topics related to the value outcomes of CP need to be explored. Among them, the most important issues are the possible negative value outcomes of CP for both customers and providers, the relationship between CP and service failure, the relationship between CP, pricing, customer satisfaction, and customer loyalty, and the psychological implications of CP in B-to-B settings for personnel from both sides of the service exchange. Moreover,
although argued for by previous studies (see, e.g., Prahalad & Ramaswamy 2004; Bettencourt et al. 2002), the possibility of achieving competitive advantage through CP remains to be proven, and is thus a critical topic for future research. In addition, the enhancement of reciprocal learning between customers and service providers, the prevention of valuable resource leakage, and the creation of resource interdependencies among firms through CP are necessary.

Also, as inter-organizational relationships and networks are prominent characteristics of B-to-B markets, future researchers should look beyond the customer and provider organizations engaged in service-based exchanges. Instead, how CP and its value outcomes are influenced by various other actors in their business networks needs to be analyzed and understood. Similarly, the effects of customer-to-customer interactions and value outcomes is another underexplored area, and is thus also crucial for further study. Furthermore, recent developments in information and communication technologies are significantly altering the ways in which organizations interact and thus require research attention regarding their influence on CP and value creation.

Further methodological expansions are needed, too. At present, the few available related studies in B-to-B contexts are mainly qualitative in nature, reflecting the nascent stage of theory development (see e.g. Santos & Spring 2015; Aarikka-Stenroos & Jaakkola 2012; Bettencourt et al. 2002). However, as the field progresses, the application of quantitative methods and the development of scales will be needed to expand the focus and scope of the research. In addition, the development of marketing analytics for data-rich environments in B-to-B services is necessary. From a contextual perspective, this study has mainly investigated CP and value outcomes in technology-oriented KIBS. Going forward, KIBS that are more dependent on tacit human capabilities and knowledge – for example, management consultancy or advertising – need to be investigated to expand contextual knowledge.
REFERENCES


APPENDIX 1      INTERVIEW GUIDE

INTERVIEW GUIDE

Mekhail Mustak
Doctoral Candidate, Department of Marketing and International Business
Turku School of Economics, University of Turku, Finland

INTRODUCTION

Inform the interviewee about:

- Confidentiality (all information received will be treated confidentially)
- Purpose of this interview
- Use of voice recorder
- Structure of this interview

BACKGROUND INFORMATION OF THE INTERVIEWEE

- Job title
- Duration in the current organization/job function
- Previous work experience(s)
- Educational background (including level of formal education)
- Involvement in the service project

THE SERVICE PROJECT

- Why the service is used? For what purpose?
- How the service is used by the customer?
- How the service is produced and delivered? Which resources are needed?

CUSTOMER PARTICIPATION (CP)

Questions/themes for the interviewees form the customer organization

- Do you need to take part in the service processes?
- What kind of inputs do you provide?
- How are those inputs used?

Questions/themes for the interviewees form the provider organization

_____________________________________________________

3 You may refer to either interviewee, her team or job function, or her organization – depending on the context of the discussion.
• Do your customer need to take part in the service processes?
• What kind of inputs do they provide?
• How are those inputs used?

CHALLENGES AGAINST CP

Questions/themes for the interviewees form the customer organization

• What are the main problems that you face in providing the inputs?
• Which challenges are from your side?
• Which challenges are from the service provider’s side?

Questions/themes for the interviewees form the provider organization

• What are the main problems that you face against getting the necessary inputs?
• Which challenges are from the customer’s side?
• Which challenges are from your side?

OVERCOMING THE CHALLENGES

Questions/themes for the interviewees form the customer organization

• How the service provider can help you to provide the necessary inputs?
• Is there anything that you can do from your side?
• How the service provider can improve themselves in that regard?

Questions/themes for the interviewees form the provider organization

• How you can help the customer to provide the necessary inputs?
• How the customer can improve themselves in that regard?
• Do you think something can be improved inside your organization, too?

VALUE OUTCOMES OF CP

Questions/themes for the interviewees form the customer organization

• Which benefits do you see against your resource inputs? For whom?
• How does your service provider benefit from your inputs?
• What if you wouldn’t participated?

Questions/themes for the interviewees form the provider organization

• Which benefits do you see against receiving and using customer’s inputs? For whom?
• How does the customer benefit against their own inputs?
• What if they wouldn’t participated?
<table>
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<th>Job title</th>
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<th>Interview Date</th>
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<tr>
<td>IT Analyst</td>
<td>Operational</td>
<td>Identification and elimination of erroneous software codes</td>
<td>Consultancy Ltd.</td>
<td>19th January, 2014</td>
<td></td>
</tr>
<tr>
<td>Systems Engineer</td>
<td>Middle</td>
<td>Leading one bug-hunting and development suggestion team</td>
<td>Consultancy Ltd.</td>
<td>19th January, 2014</td>
<td></td>
</tr>
<tr>
<td>IT Specialist</td>
<td>Upper</td>
<td>Strategic decision making and implementation together with the customer to reduce software malfunctions</td>
<td>Consultancy Ltd.</td>
<td>19th January, 2014</td>
<td></td>
</tr>
<tr>
<td>Role</td>
<td>Level</td>
<td>Task Description</td>
<td>Company</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td>Senior Adaptation Engineer</td>
<td>Middle</td>
<td>Verification of error reports, and reporting to the customer</td>
<td>Consultancy Ltd.</td>
<td>12th March, 2014</td>
<td></td>
</tr>
<tr>
<td>Technical Director</td>
<td>Upper</td>
<td>Overseeing of the engineering activities and developments</td>
<td>Ship Builder Ltd.</td>
<td>25th February, 2015</td>
<td></td>
</tr>
<tr>
<td>Area Contract Manager</td>
<td>Middle</td>
<td>Finalizing sales contracts and ensuring technical specifications of final deliveries match with the contracts</td>
<td>Ship Builder Ltd.</td>
<td>25th February, 2015</td>
<td></td>
</tr>
<tr>
<td>Sales officer</td>
<td>Operational</td>
<td>Material calculations as per the requirement of the customers, submission of tenders, and follow-ups</td>
<td>Engineering Ltd.</td>
<td>10th April, 2015</td>
<td></td>
</tr>
<tr>
<td>Product Manager, New Products</td>
<td>Middle</td>
<td>Retro-fitting new cargo equipment in already sailing ships</td>
<td>Engineering Ltd.</td>
<td>8th April, 2015</td>
<td></td>
</tr>
<tr>
<td>Senior Naval Architect</td>
<td>Upper</td>
<td>In-charge of both the design and engineering teams</td>
<td>Engineering Ltd.</td>
<td>8th April, 2015</td>
<td></td>
</tr>
<tr>
<td>Sales Director</td>
<td>Upper</td>
<td>Head of cargo solution business</td>
<td>Engineering Ltd.</td>
<td>7th April, 2015</td>
<td></td>
</tr>
<tr>
<td>Project Manager</td>
<td>Middle</td>
<td>Development of new value-added services</td>
<td>Engineering Ltd.</td>
<td>7th April, 2015</td>
<td></td>
</tr>
<tr>
<td>Contract Management Director</td>
<td>Upper</td>
<td>Head of legacy equipment sales business to shipyards on tendering basis</td>
<td>Engineering Ltd.</td>
<td>2nd April, 2015</td>
<td></td>
</tr>
<tr>
<td>Contract Manager</td>
<td>Middle</td>
<td>Managing an equipment-sales team on tendering basis</td>
<td>Engineering Ltd.</td>
<td>2nd April, 2015</td>
<td></td>
</tr>
<tr>
<td>Technical Designer</td>
<td>Operational</td>
<td>Technical design and development of hatch covers for cargo ships</td>
<td>Engineering Ltd.</td>
<td>9th April, 2015</td>
<td></td>
</tr>
<tr>
<td>Chief Financial Officer</td>
<td>Upper</td>
<td>Head of finance of the organization</td>
<td>Public Ltd.</td>
<td>2nd April, 2014</td>
<td></td>
</tr>
<tr>
<td>Financial Planning Officer (Senior)</td>
<td>Middle</td>
<td>Regular finance-related management</td>
<td>Public Ltd.</td>
<td>9th April, 2014</td>
<td></td>
</tr>
<tr>
<td>Financial Planning Officer (Junior)</td>
<td>Operational</td>
<td>project related finances</td>
<td>Public Ltd.</td>
<td>9th April, 2014</td>
<td></td>
</tr>
<tr>
<td>Accounting Manager</td>
<td>Middle</td>
<td>Leading of accounting and cash management team</td>
<td>Public Ltd.</td>
<td>15th April, 2014</td>
<td></td>
</tr>
<tr>
<td>Financial Planning Officer (Junior, 2nd)</td>
<td>Operational</td>
<td>Invoices and account receivables</td>
<td>Public Ltd.</td>
<td>15th April, 2014</td>
<td></td>
</tr>
<tr>
<td>Chief Executive Officer</td>
<td>Upper</td>
<td>Overall management of the organization</td>
<td>Finance Ltd.</td>
<td>28th May, 2014</td>
<td></td>
</tr>
<tr>
<td>Team Leader</td>
<td>Middle</td>
<td>Leading a team which is responsible for book-keeping, invoicing, and billing</td>
<td>Finance Ltd.</td>
<td>28th May, 2014</td>
<td></td>
</tr>
</tbody>
</table>

**Case 2**

**Case 3**
The purpose of this dissertation is to investigate the enhancement of customer participation for superior value outcomes in knowledge intensive business services.

Knowledge intensive business services (KIBS) are considered a cornerstone of contemporary developed economies. Services like R&D, management consultancy, and engineering apply their specialized knowledge, competencies, and other resources to help customer organizations overcome specific challenges and grow. Nevertheless, most of the time, it is difficult to produce and deliver these services without customer participation (CP) - customer’s input of resources - be it information and knowledge, computing infrastructure, or access to business networks. Extant studies also indicate that CP can generate various value outcomes for both customer and provider organizations. However, many crucial questions remain unanswered.

How do customer organizations actually participate in the service processes of knowledge intensive business services? Which value outcomes does it generate, for both customer and provider organizations? How can customer participation be enhanced to generate superior value outcomes? These are the questions answered in this study through the investigation of three cases, each containing one customer and one provider organization involved in a specific knowledge-based service project. The findings generate deeper academic understandings and insights. Also, managers will find the study helpful for creating and realizing superior value outcomes through the enhancement of CP.