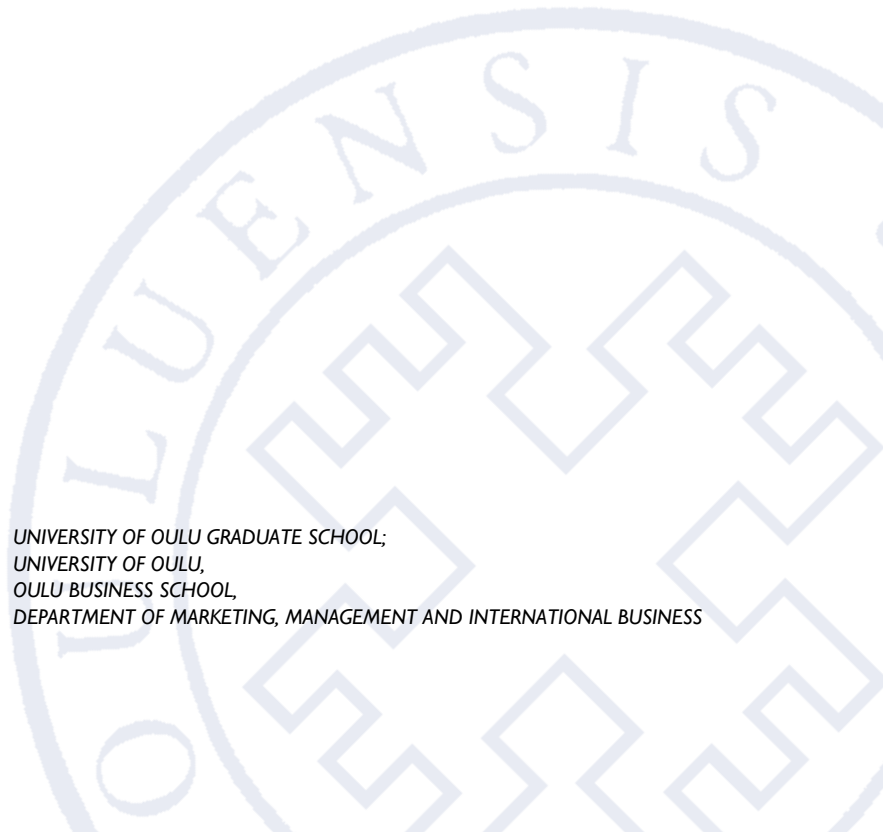


*Eija-Liisa Heikka*

COMMUNICATING VALUE IN  
KNOWLEDGE-INTENSIVE  
BUSINESS RELATIONSHIPS

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UNIVERSITY OF OULU,  
OULU BUSINESS SCHOOL,  
DEPARTMENT OF MARKETING, MANAGEMENT AND INTERNATIONAL BUSINESS

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*EIJA-LIISA HEIKKA*

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RELATIONSHIPS**

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## **Heikka, Eija-Liisa, Communicating value in knowledge-intensive business relationships.**

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### *Abstract*

This study investigates the communication of value in the customer relationships of knowledge-intensive business services (KIBS) in relation to value propositions, service modularity, customer knowledge construction, and purchasing criteria. While customer knowledge construction and purchasing criteria form the basis for understanding the characteristics of these relationships, value propositions and service modularity illuminate the detail of how value is communicated in them.

The results of the study highlight the importance of creating trust in KIBS customer relationships to foster successful collaboration and open communication, which becomes a means for customer knowledge construction. This study reveals a range of communication practices as well as proposes additional and critical ways to construct such knowledge in the development of customised value propositions. In addition, the essential purchasing criteria in KIBS customer relationships are explored, and the results show that the customer relationship itself influences which criteria are emphasised during the purchasing process. This study also challenges the idea that value proposition is always co-created in KIBS customer relationships and distinguishes value components in new and established KIBS customer relationships both at relationship and project levels. The results of this study also propose how service modularity can be utilised to customise value propositions through configuration of knowledge as well as internal and external resources to various and often complex customer needs.

This study contributes to the scientific discussion on KIBS customer relationships by drawing on research in the areas of value propositions, service modularity, customer knowledge construction, and purchasing criteria. The focus of this study, the communication of value, is novel and has not been discussed largely in the literature of KIBS customer relationships from these perspectives.

*Keywords:* customer knowledge construction, KIBS customer relationships, purchasing criteria, service modularity, value proposition



## **Heikka, Eija-Liisa, Arvon viestiminen tietointensiivisten liike-elämän palvelujen asiakassuhteissa.**

Oulun yliopiston tutkijakoulu; Oulun yliopisto, Oulun yliopiston kauppakorkeakoulu, Markkinoinnin, johtamisen ja kansainvälisen liiketoiminnan yksikkö

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### ***Tiivistelmä***

Tämä väitöskirja käsittelee arvon viestimistä tietointensiivisten liike-elämän palvelujen (KIBS) asiakassuhteissa arvolupausten, palvelumodulaarisuuden, asiakastiedon rakentamisen ja ostokriteerien näkökulmista. Asiakastiedon rakentamisen ja ostokriteerien näkökulmat auttavat huomiomaan KIBS-asiakassuhteiden ominaispiirteiden vaikutuksen arvon viestimiseen, kun taas arvolupausten ja palvelumodulaarisuuden näkökulmat luovat tarkemman käsityksen siitä, miten arvoa viestitään KIBS-asiakassuhteissa.

Tämä tutkimus korostaa luottamuksen merkitystä yhteistyön onnistumiselle ja avoimelle viestinnälle luoden perustan asiakastiedon rakentamiselle. Tämä tutkimus paljastaa erilaisia viestintäkäytäntöjä sekä näitä täydentäviä käytäntöjä asiakastiedon rakentamiseksi, mikä on keskeistä arvolupausten räätälöimiseksi. Tämä tutkimus paljastaa myös olennaisimmat ostokriteerit KIBS-asiakassuhteissa. Lisäksi tämän tutkimuksen tulokset osoittavat, että kyseessä oleva KIBS-asiakassuhde vaikuttaa siihen, mitkä ostokriteerit korostuvat ostoprosessin aikana. Tämä tutkimus myös haastaa aiemman käsityksen arvolupausten yhteisluonnista KIBS-asiakassuhteissa ja esittelee arvokomponenttien painotukset uusissa ja vakiintuneissa KIBS-asiakassuhteissa ja suhteiden että projektien tasolla. Tässä tutkimuksessa kuvataan myös, kuinka KIBS-yritys voi hyödyntää palvelumodulaarisuutta yhdistelemällä tietoaan sekä resurssejaan arvolupausten räätälöinnissä vastaamaan asiakkaiden usein monimutkaisiakin tarpeita.

Tämä väitöskirja kontribuoi erityisesti KIBS-asiakassuhteista käytyyn tieteelliseen keskusteluun erilaisilla näkökulmillaan, jotka tuottavat kontribuutiota yhdessä ja erikseen arvon viestimiseen KIBS-asiakassuhteissa. Tämän tutkimuksen näkökulma arvon viestimiseen on tuore, sillä sitä ei ole aiemmin laajemmin käsitelty KIBS-asiakassuhteita käsittelevässä kirjallisuudessa näistä näkökulmista.

*Asiasanat:* arvolupaus, asiakastiedon rakentaminen, ostokriteerit, palvelumodulaarisuus, tietointensiivisten liike-elämän palvelujen asiakassuhteet





*Emilialle ja Elmerille*



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On the last day of the year 2020

Eija-Liisa Heikka



## Abbreviations

B2B	business-to-business
c.f.	conferatur
e.g.	exempli gratia
et al.	et alia
etc.	et cetera
i.e.	id est
KIBS	knowledge-intensive business services
RQ	research question
SDL	service-dominant logic



## Original publications

This dissertation is based on the following research papers, which are referred throughout the text by their Roman numerals:

- I Heikka, E-L. (2020). Constructing customer knowledge in knowledge-intensive customer relationships. *Knowledge and Process Management*, 27(4), 251–261. <https://doi.org/10.1002/kpm.1650>
- II Heikka, E. L., & Mustak, M. (2017). Purchasing of knowledge-intensive business services: A case study of relevant factors. *International Journal of Procurement Management*, 10(1), 21-37. <https://doi.org/10.1504/IJPM.2017.080909>
- III Heikka, E. L., & Nätti, S. (2018). Evolving value propositions in knowledge-intensive business services. *Journal of Business & Industrial Marketing*, 33(8), 1153-1164. <https://doi.org/10.1108/JBIM-12-2017-0306>
- IV Heikka, E. L., Frandsen, T., & Hsuan, J. (2018). Matching value propositions with varied customer needs: The role of service modularity. *Knowledge and Process Management*, 25(1), 64-73. <https://doi.org/10.1002/kpm.1556>





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# 1 Introduction

This chapter introduces the academic and managerial background, followed by the aim and research questions of this study. After that, the key concepts, as well as the positioning of this study and justifications for research, are presented. Finally, the structure of this study is presented at the end of this chapter.

## 1.1 Background of the study

The phenomenon investigated in this study is the communication of value in KIBS customer relationships in respect of value propositions, service modularity, customer knowledge construction, and purchasing criteria to provide essential insight into the comprehensive understanding of the phenomenon from several perspectives. Exploring customer knowledge construction and purchasing criteria will help build a sustainable foundation for understanding the characteristics of these relationships and the decisions made by KIBS firms in relation to communicating value to their customers. Value propositions and service modularity, on the other hand, will help create a more detailed picture of how value is communicated in them.

KIBS represent a fast-growing business sector (Santos-Vijande et al., 2013) primarily owing to changes in other industries that require relevant knowledge to deal with shifting technologies and social conditions (Miles, 2005). The increased economic significance of KIBS (Bettencourt et al., 2002; Santos-Vijande et al., 2013) has contributed to employment growth (European Commission, 2014), including that of the Finnish economy. In addition to their direct economic impact, KIBS are crucial in shaping a firm's competitiveness and a key to innovation and value creation (Bettencourt et al., 2002; Zenker et al., 2015).

More specifically, KIBS provide non-routine and highly knowledge-intensive services to other firms (Muller & Doloreux, 2009) with particularly profound expertise (Den Hertog, 2000; Nätti & Ojasalo, 2008b). These services are characteristically customised and complex, which makes significant customer interaction necessary (Dawson, 2000: 46; Løwendahl et al., 2001; Malhotra & Morris, 2009; Von Nordenflycht, 2010). Because of this close interaction and sharing of sensitive knowledge, these relationships can evolve towards dependency, reciprocity, trust, and mutual interaction (e.g. Ganesan, 1994; Cannon & Perreault, 1999; Ford et al., 2003; Growe, 2019). Different types of customer relationships exist in KIBS, varying from new and transactional to close and long-term. A new

relationship is typically more superficial than an established one in the sense that the ties between the customer and the KIBS firm are usually looser in the early phases of its development. Moreover, the services in question are multisided and interactive, which means that relationships tend to become closer over time.

The value of a product or service must be communicated effectively to existing and potential customers (Olavarrieta & Friedmann, 2008). Competitive advantage for a service-based business therefore depends, to a large extent, on its ability to develop value propositions that communicate value to each customer (Tokman & Beitelspacher, 2011). Indeed, recent studies have shown an explicit link between a firm's growth orientation and the novelty and attractiveness of their value propositions (Bailetti & Tanev, 2020), and it has also been recognised that value propositions are a key source of competitive advantage (Perrey et al., 2004; Bailetti et al., 2020). In KIBS, some firms rely on uniquely customised services and others on a more general approach (e.g. Löwendahl et al., 2001; Nätti et al., 2017), and this will influence their respective value propositions. In addition, the characteristics of business-to-business (B2B) relationships will influence distinctive value propositions and how they are communicated in customer relationships (Kowalkowski, 2011).

A value proposition communicates how a firm aims to provide value to its customers (Payne et al., 2017), and the utilisation of different value propositions (Perrey et al., 2004) and their distinctiveness determine whether or not customers choose to buy. Thus, value propositions play a crucial role in business strategy because of their strong influence on competitive advantage and performance (Anderson et al., 2006) and their ability to attract and serve targeted market segments (Rintamäki et al., 2007). One of the most valuable resources a firm has is its portfolio of value propositions that it offers its diverse stakeholders, including its customers (Bailetti et al., 2020). Value propositions are therefore central to the communication of value in KIBS customer relationships.

Relatedly, service modularity means that the service offering can be assembled from several standard elements, and the processes can be combined from several standard functions, which means that the service, service provision, and distribution processes can be individual and different depending on the customer (Sundbo 2002). There is an evident linkage between value propositions and service modularity in KIBS, which operate on the basis of tacit knowledge that is difficult to transfer; modularity allows these complex services to be customised more cost effectively (Bettencourt et al., 2002; Nätti et al., 2017; Cabigiosu & Campagnolo, 2019), can enhance a firm's communication regarding its offerings and the relevant

organisational processes and practices (Nätti et al., 2017), and emphasises value for individual customers (Anderson et al., 2006; Pekkarinen & Ulkuniemi, 2008). KIBS firms need to manage their various relationships using different value propositions (Kowalkowski, 2011), and modularity can help in these efforts to enable more effective communication of value.

In relation to value propositions, the firm needs to gain knowledge about its customers (Blosch, 2000) and better understand their value creation process (Heinonen & Strandvik, 2018). This knowledge can be utilised to develop customer relationships (Tseng & Wu, 2014), enhance service quality (Martin et al., 1999; Alam & Perry, 2002; Tseng & Wu, 2014), guide customers' choices (Day, 2002; Ritala et al., 2013), and customise offerings according to customer needs (e.g. Pekkarinen & Ulkuniemi 2008; Cabigiosu et al., 2015). Customer knowledge construction builds understanding that can support organisational decision making; unless a firm knows its customers, it will find it challenging to communicate value to them.

Identifying customers' purchasing criteria is an essential part of constructing knowledge about them, particularly in KIBS because of its relatively abstract nature (Van Weele, 2005; Coltman & Devinney, 2013; Brashear-Alejandro et al., 2014) and the risk involved in purchasing such services (e.g. Mitchell et al., 2003; Valk & Rozemeijer, 2009; Sahin, 2011). This identification thus ultimately enables KIBS firms to communicate value to its customers more effectively.

## **1.2 Aim of the study and research questions**

The aim of this study is to understand the communication of value in KIBS customer relationships and to contribute to the relevant literature from a number of perspectives. The contribution is made with an overview and four related research papers, which contribute both individually and collectively to the literature on KIBS customer relationships. Previous research in value propositions, service modularity, customer knowledge construction, and purchasing criteria are utilised to answer the main research question. Even though KIBS form an increasingly significant segment of the economy (Day & Barksdale, 2003) and role in business, related research is scarce (Muller & Doloreux, 2009). As the number of KIBS firms increases in line with growing demand, it will be necessary to study the communication of value in KIBS customer relationships more carefully. It is particularly essential since the previous research on the communication of value is scarce in the literature of KIBS customer relationships. The need for this research

is also supported by the importance of communication and its central role in KIBS customer relationships (Miles, 2012; Strambach, 2012).

The first sub-question forms the basis for understanding the communication of value in KIBS customer relationships by examining the characteristics of KIBS customer relationships and introducing KIBS, including perspectives of customer knowledge construction and purchasing criteria, which enable the communication of value in KIBS customer relationships.

The second sub-question concentrates in greater detail on the communication of value by exploring how value propositions vary in different types and at different levels of KIBS customer relationships. In this study, different types of customer relationships refer to new and established customer relationships, whereas different levels of KIBS customer relationships refer to relationship and project levels.

Finally, the third sub-question concentrates on the role of service modularity in matching value propositions with varied customer needs in KIBS customer relationships.

The main research question is: *How is value communicated in KIBS customer relationships?*

To answer the main research question, three more specific sub-questions are formed:

1. *How do the characteristics of KIBS customer relationships influence the communication of value?*
2. *How the communication of value varies and evolves in new and established KIBS customer relationships both at relationship and project levels?*
3. *How can the communication of value be matched with various needs of customers in KIBS customer relationships?*

Research papers I, II, III and IV, are all related to the sub-question one by exploring value propositions, service modularity, purchasing criteria and customer knowledge construction to build a profound understanding of how the characteristics of KIBS customer relationships influence the communication of value. In addition, research papers I and III concentrate especially on the sub-question two by describing how the communication of value varies and evolves in different types and at different levels of KIBS customer relationships. Finally, research papers II and IV concentrate on the sub-question three by examining how service modularity can help match the communication of value with customers' various needs in KIBS customer relationships.

Table 1 summarises the original publications included in this study.

**Table 1. Original publications of this study.**

Original publication	Contribution of the author	Contribution to the sub-questions	Paper-specific answers
I Heikka, E.-L. (2020). Constructing customer knowledge in knowledge-intensive customer relationships. Knowledge and Process Management, 27(4), 251–261.	The present author had the main responsibility for planning, collecting and analysing the empirical data, as well as for planning and writing the research paper.	1, 2	How customer knowledge is constructed in KIBS customer relationships.
II Heikka, E. L., & Mustak, M. (2017). Purchasing of knowledge-intensive business services: a case study of relevant factors. International Journal of Procurement Management, 10(1), 21–37.	The present author had the main responsibility for planning, collecting and analysing the empirical data. The co-author gave feedback and participated in the planning and writing the research paper.	1, 3	What are purchasing criteria in KIBS customer relationships.
III Heikka, E. L., & Nätti, S. (2018). Evolving value propositions in knowledge-intensive business services. Journal of Business & Industrial Marketing, 33(8), 1153–1164.	The present author had the main responsibility for planning, collecting and analysing the empirical data. The co-author gave feedback and participated in the planning and writing the research paper.	1, 2	How value propositions vary and evolve in new and established KIBS customer relationships at relationship and project levels.
IV Heikka, E. L., Frandsen, T., & Hsuan, J. (2018). Matching value propositions with varied customer needs: the role of service modularity. Knowledge and Process Management, 25(1), 64–73.	The present author had the main responsibility for planning, collecting and analysing the empirical data. The co-authors gave feedback and participated in the planning and writing the research paper.	1, 3	How service modularity helps to match value propositions with varied customer needs in KIBS customer relationships.

### 1.3 Key concepts of the study

*Knowledge-intensive business services (KIBS)* are professional services that provide highly knowledge-intensive services to other businesses (Muller & Doloreux, 2009). KIBS strongly rely on professional expertise and/or knowledge related to a specific field (Den Hertog, 2000). In practice, there are as many kinds of KIBS as there are areas of knowledge, which is why the notion of KIBS includes a wide range of services (Den Hertog, 2000; Miles, 2005), such as management consultancy, legal services, software services, accounting, and advertising, among others (Miles, 2005).

*Business-to-business (B2B) customer relationships* in KIBS can vary from transactional purchases to long-term relationships and typically involve close interaction, reciprocity, and trust (e.g. Cannon & Perreault, 1999; Ford et al., 2003; Growe, 2019) because of the confidential knowledge involved in providing such services (Martin et al., 1999; Karantinou & Hogg, 2009).

*Communication* is the sharing or transfer of knowledge, ideas, or feelings from a person or group to another, and it has different verbal and non-verbal (Jones & LeBaron, 2002) and written forms (Merrier & Dirks, 1997). The goal of communication is mutual understanding (Goldreich et al., 2012). In this study, communication refers to the reciprocal verbal or written communication between a KIBS firm and its customers, which can take place, for instance, by phone, e-mail, or face-to-face in everyday activities such as sales negotiations or project planning.

*A value proposition* is a communication practice that aims to communicate the benefits and savings of an offering to a customer (Anderson et al., 2006; Ballantyne et al., 2011). Firms therefore need to develop, communicate, and implement value propositions that resonate with their customers (Bailetti et al., 2020; Ranta et al., 2020). A central aspect of the value creation of KIBS revolves around their ability to communicate value propositions that are customised according to customer needs (Frow & Payne, 2011). This study takes a dyadic view, i.e. a view of the KIBS firm and the customer, in its investigation of how value is communicated in KIBS customer relationships. Research paper III of this study describes this perspective in more detail.

*Service modularity* comprises three dimensions: modular services; modular processes; and modular organisations (Pekkarinen & Ulkuniemi, 2008). A module can be seen as a component that is removable from the standard offering (Bask et al., 2010), and modules become visible to customers in the flexibility of the firm's range of services (Rahikka et al., 2011). Thus, modularity enables customising



services (Davies et al., 2007; Storbacka et al., 2013) and related value propositions to different customers. Research paper IV of this study focuses on this perspective in more detail.

*Customer knowledge* comprises information that is obtained from and/or about customers (Gebert et al., 2003; Salojärvi & Sainio, 2006; Khodakarami & Chan, 2014), and it can be utilised to improve relationships and enhance service quality (Martin et al., 1999; Alam & Perry, 2002; Tseng & Wu, 2014). Customer knowledge can also be useful in determining which expertise is provided to which customers (Hua et al., 2013). Collaboration between the customer and the firm increases the firm's customer knowledge, and a long-term customer relationship provides opportunities for the optimal utilisation of customer knowledge (Anderson et al., 2011). This area of focus is discussed in more detail in research paper I.

*Purchasing criteria* are crucial in KIBS since the decision to purchase such services is often a critical decision in B2B markets (Atkinson & Bayazit, 2014; Hallikas et al., 2013; Kowalkowski et al., 2012; Matthyssens & Vandembemt, 2008). Furthermore, customers tend to make careful decisions when purchasing these services (Atkinson & Bayazit, 2014; Bettencourt et al., 2002) due to the high degree of risk and uncertainty involved in purchasing them (e.g. De Brentani, 1991; Sahin, 2011). Purchasing criteria also influence the customer's perceived value and price is one of the most prominent factors in communicating value of the offering to customers, and thus influence their evaluation of the offering. Research paper II of this study concentrates on this perspective.

#### **1.4 Positioning of the study and justifications for research**

This study is positioned in the literature on KIBS customer relationships, to which it contributes by examining the phenomenon of the communication of value in KIBS customer relationships. The work investigates this communication of value using a novel approach from four separate but interrelated perspectives, namely value propositions, service modularity, customer knowledge construction, and purchasing criteria, which contribute to the literature both individually and collectively.

This study concentrates on the KIBS literature, and especially on customer relationships in KIBS. In general, KIBS research has been conducted from an innovation perspective (Strambach, 2008), and the communication of value is not itself very well addressed. This study therefore aims to contribute to a deeper

understanding of KIBS customer relationships by examining the communication of value in them from the perspectives of value propositions, service modularity, customer knowledge construction, and purchasing criteria. This will provide essential insight into the phenomenon using several perspectives.

The KIBS literature is relatively fragmented with a range of discussions from multiple research areas including capabilities, customer relationships, innovation and new service development, knowledge construction, modularity, purchasing, value co-creation, and value propositions (see Table 2). Studies of capabilities explore the proficiencies required in KIBS businesses such as knowledge and project management and relationship orchestration (Ritala et al., 2013). Innovation and new service development research includes the examination of innovativeness and how this influences performance (Santos-Vijande et al., 2013), and discussion relating to value co-creation tends to elaborate on the role of customers in the value co-creation process (e.g. Bonomi Santos & Spring, 2015; Mustak, 2019). The current study does not consider capabilities and innovation, nor is value co-creation addressed in detail, because it does not aim to contribute to these areas.

Table 2 presents the main themes in KIBS research and examples of related articles.

**Table 2. Main themes in KIBS research and examples of related articles in alphabetical order.**

Authors	Year	Name of the article	Journal
<b>CAPABILITIES IN KIBS</b>			
Ritala, Hyötylä, Blomqvist & Kosonen	2013	Key capabilities in knowledge-intensive service business.	The Service Industries Journal
Janssen, Castaldi & Alexiev	2018	In the vanguard of openness: which dynamic capabilities are essential for innovative KIBS firms to develop?	Industry and Innovation
<b>CUSTOMER RELATIONSHIPS IN KIBS</b>			
Lian & Laing	2007	Relationships in the purchasing of business to business professional services: the role of personal relationships.	Industrial Marketing Management
Karantinou & Hogg	2009	An empirical investigation of relationship development in professional business services.	Journal of Services Marketing
Cabigiosu & Campagnolo	2019	Innovation and growth in KIBS: the role of clients' collaboration and service customisation.	Industry and Innovation

Authors	Year	Name of the article	Journal
Casidy & Nyadzayo	2019	Drivers and outcomes of relationship quality with professional service firms: an SME owner-manager perspective.	Industrial Marketing Management
Growe	2019	Developing trust in face-to-face interaction of knowledge-intensive business services (KIBS).	Regional Studies
Heirati, Henneberg, Richter & Harste	2019	Differential importance of social and economic determinants of relationship performance in professional services.	Industrial Marketing Management

#### **INNOVATION AND NEW SERVICE DEVELOPMENT IN KIBS**

Santos-Vijande, González-Mieres & López-Sánchez	2013	An assessment of innovativeness in KIBS: implications on KIBS' co-creation culture, innovation capability, and performance.	Journal of Business & Industrial Marketing
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#### **KNOWLEDGE CONSTRUCTION IN KIBS**

Nätti & Ojasalo	2008	What prevents effective utilisation of customer knowledge in professional B-to-B services? An empirical study.	The Service Industries Journal
Strambach	2008	Knowledge-Intensive Business Services (KIBS) as drivers of multilevel knowledge dynamics.	International Journal of Services Technology and Management
Lara, Palacios-Marques & Devece	2012	How to improve organizational results through knowledge management in knowledge-intensive business services.	The Service Industries Journal

#### **MODULARITY IN KIBS**

Cabigiosu, Campagnolo, Furlan & Costa	2015	Modularity in KIBS: the case of third-party logistics service providers.	Industry and Innovation
Nätti, Ulkuniemi & Pekkarinen	2017	Implementing modularization in professional services—the influence of varied knowledge environments.	Knowledge and Process Management

#### **PURCHASING IN KIBS**

Aarikka-Stenroos & Makkonen	2014	Industrial buyers' use of references, word-of-mouth and reputation in complex buying situation.	The Journal of Business & Industrial Marketing
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Authors	Year	Name of the article	Journal
Nyadzayo, Casidy & Thaichon	2020	B2B purchase engagement: examining the key drivers and outcomes in professional services.	Industrial Marketing Management

#### VALUE CO-CREATION IN KIBS

Aarikka-Stenroos & Jaakkola	2012	Value co-creation in knowledge intensive business services: a dyadic perspective on the joint problem solving process.	Industrial Marketing Management
Bonomi Santos & Spring	2015	Are knowledge intensive business services really co-produced? Overcoming lack of customer participation in KIBS.	Industrial Marketing Management
Kohtamäki & Partanen	2016	Co-creating value from knowledge-intensive business services in manufacturing firms: the moderating role of relationship learning in supplier–customer interactions.	Journal of Business Research
Mustak	2019	Customer participation in knowledge intensive business services: perceived value outcomes from a dyadic perspective.	Industrial Marketing Management

#### VALUE PROPOSITION IN KIBS

Baumann, Le Meunier- FitzHugh & Wilson	2017	The challenge of communicating reciprocal value promises: buyer-seller value proposition disparity in professional services.	Industrial Marketing Management
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Rather, the overall investigation is positioned specifically in KIBS customer relationships of which the literature includes explorations of relationship development, firm-customer collaboration, service customisation, purchasing, relationship quality, trust, and interaction (see Table 2). Research into value propositions and the communication of value in KIBS customer relationships is presently insufficient, which supports the significance of this study; there is a clear gap in the literature concerning the communication of value in KIBS customer relationships. This study therefore seeks to address this gap by drawing on discussions about value propositions, service modularity, customer knowledge construction, and purchasing criteria. Arguably, there are existing scientific discussions that are somewhat related to the perspectives selected for this study, but these would not have served the current aim, to understand the communication of value in KIBS customer relationships, entirely well. These four angles have been carefully chosen for several positional reasons.

More specifically, the topic of value propositions is relevant because this study focuses on the communication of value between KIBS firms and their customers, in everyday activities such as sales negotiations or project planning. Value propositions can themselves be viewed as a communication practice (Ballantyne et al., 2011) that takes place in everyday interactions. As such, the notion of value propositions is crucial to understanding how the communication of value can vary and evolve in different types and at different levels of customer relationships.

An existing area of investigation that sits closely with value propositions is value-based selling, which is a process that focuses on benefitting the customer during the sales process (Terho et al., 2012). In this particular study, however, the focus is not merely on sales process; it extends beyond that phase into the planning and implementation of a project and the development and maintenance of customer relationships in relation to the communication of value within them. Consequently, value-based selling is not an appropriate enough area with regards to the focus and aim of this work.

Examining value propositions will create a more detailed understanding of the communication of value in KIBS customer relationships because they are, fundamentally, about communicating and should be communicated as early as possible during the design of service provision (Mathieu, 2001). The concept of value propositions is very popular and claimed to be one of the most frequently used terms in business (Anderson et al., 2006; Payne et al., 2017). While value proposition terminology is increasingly used by both managers and scholars, relatively little research on the topic has been published in the KIBS context specifically (Payne et al., 2017) In addition, only a little research has been conducted on value propositions in industrial marketing practice (Ballantyne et al., 2011). Moreover, the existing literature is not clear on how firms should customise their value propositions for different customers or how to configure internal and external resources to deliver them effectively (Bailetti & Tanev, 2020). This study will, at least partially, fill this gap in the existing literature by exploring the composition of value propositions in new and established KIBS customer relationships at both relationship and project levels.

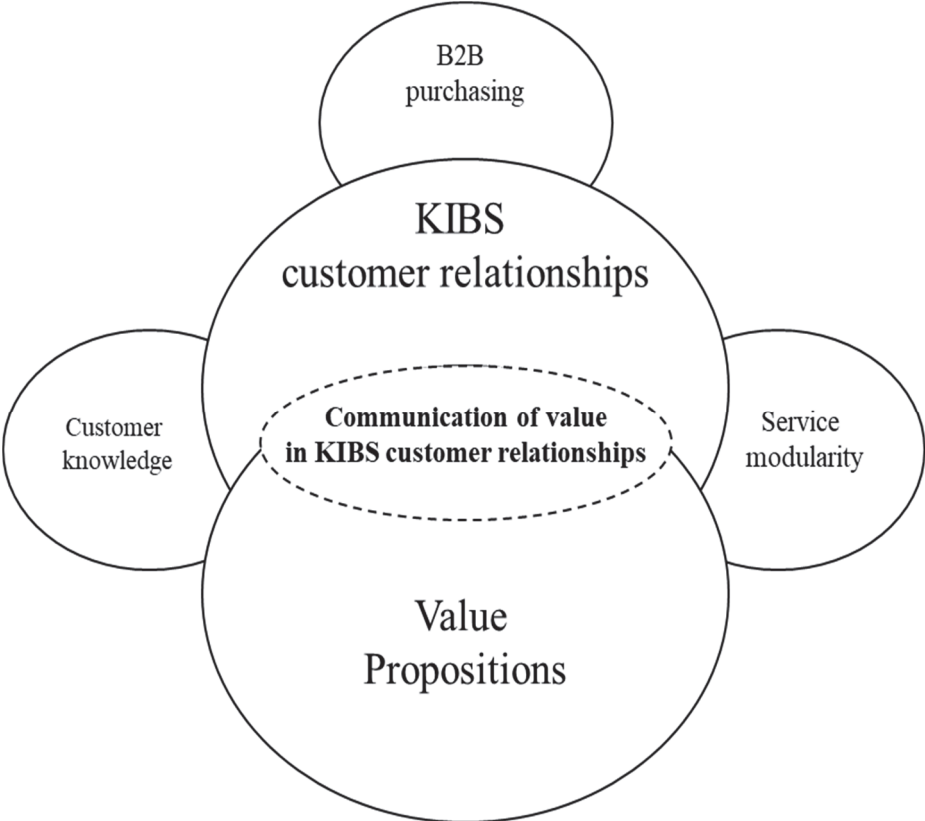
Next, service modularity was chosen to investigate how the communication of value might be customised to match value propositions with various customer needs. KIBS projects can be characterised by their difference from one another and by the need for customisation, and it is consequently necessary to customise value propositions as well. Service modularity has been identified as enabling customisation in KIBS (Nätti et al., 2017), and was therefore selected to further

examine the communication of value in this study for its potential in matching value propositions with customer needs. Business excellence is often based on a firm's flexibility and ability to meet varying needs (Bask et al., 2010), but the literature on the relevance of service modularity to KIBS is scarce (de Mattos et al., 2019). Most related research is concerned with manufacturing and not the service sector (Gershenson et al., 2003; Iman, 2016), and the opportunities related to modularity and its implementation have not been fully addressed or utilised (Bask et al., 2010; de Mattos et al., 2019). Findings thus far are also vague in terms of how modularity might be used to develop value propositions, and thus communicate value, in KIBS customer relationships. This lack of understanding could be hindering the development of distinctive value propositions for customers, and so this study aims to explain how KIBS firms can combine internal and external resources through a modular approach to formulate customised value propositions.

To form a comprehensive understanding of KIBS customer relationships, this study examines them from the perspectives of customer knowledge construction and purchasing criteria. Customer knowledge, which includes understanding their purchasing criteria, increases a KIBS firm's awareness of the characteristics of their customer relationships and how those characteristics influence the communication of value within them. Knowledge of this kind is the basis for understanding what customers value as well as their value creation processes. The perspective of customer knowledge construction is additionally critical because it is very challenging to communicate value without knowing the customer, and once a firm knows its customer and their needs, they can make smarter choices about how to allocate their resources (Anderson et al., 2006). Despite this importance, customer knowledge construction has received relatively little attention in previous research, and not much is known about how firms learn about their customers (Salojärvi & Sainio, 2006; Khodakarami & Chan, 2014).

While purchasing criteria influence the customer's perceived value and price is one of the most prominent factors overall in communicating value of the offering, relatively little research has been conducted on the B2B purchasing criteria in KIBS compared with research on the purchase of tangible items (Sheth, 1996; Valk & Rozemeijer, 2009; Kidiyoor & Dhaigude, 2020). As firms increasingly rely on KIBS, a clear understanding of the purchasing criteria is essential for both parties in the customer relationship (Day & Barksdale, 1994; Hallikas et al., 2013); this will help KIBS firms make more informed decisions about how to communicate value to each customer and how some criteria are more important depending on specific customer needs.

Figure 1 illustrates the positioning of this study. The main scientific discussions in this study concern KIBS customer relationships and value propositions, forming together an understanding of the communication of value in KIBS customer relationships. The scientific discussions in the areas of customer knowledge, B2B purchasing and service modularity support this purpose.



**Fig. 1. Positioning of this study.**

Due to the central role of individual experts in KIBS provision, it is useful to identify how the KIBS literature intersects with research in professional services. KIBS has been divided into traditional professional (P-KIBS) and technology-based (T-KIBS) services with P-KIBS including management consultancy, education, advertising, accounting, R&D, and legal services. In contrast, T-KIBS

covers computer- and information-related services, software expertise, and technical engineering (Miles et al., 1995: 29-30; Miles, 2005). Each area also contains sub-categories (Muller & Doloreux, 2009), which can overlap (Miles, 2005). However, many professional services are considered knowledge intensive, whether they are technology-based or not (Den Hertog, 2000), so these can be positioned under the KIBS umbrella.

## **1.5 Structure of the study**

This study begins with the introduction chapter. After that, in chapters two and three, the theoretical foundation of this study is discussed regarding the communication of value and KIBS customer relationships. The second chapter concentrates on understanding the characteristics of KIBS customer relationships and the issues that are central to them. The third chapter, in turn, presents issues that are central to the communication of value in these relationships. In the fourth chapter, the methodological choices of this study are described in detail. The fifth chapter gives an overview of the results of the four research papers included in this study. The sixth chapter presents answers to the research questions as well as theoretical contributions and managerial implications. Also, the reliability, validity, generalisability and trustworthiness of this study are assessed. Limitations and future research suggestions conclude the sixth chapter. In addition, the collection of original publications is included at the end of this study.



## 2 Customer relationships in KIBS

This chapter describes KIBS customer relationships. First, definitions of KIBS and KIBS firms are presented in detail, followed by a description of the characteristics of KIBS customer relationships. After that, customer knowledge and its construction, as well as purchasing criteria in KIBS customer relationships, are presented.

### 2.1 KIBS

The term “knowledge-intensive business services” was first used by the European Commission to denote a specific set of services and activities (Den Hertog, 2000), both traditional professional services and technology-based services (Miles et al., 1995: 29-30; Miles, 2005). As suggested in the literature, several factors have increased the demand for KIBS, including the introduction of new information and communication technologies that demand continuous adaptation from firms (e.g. Miles, 2005; Pardos et al., 2007). An increased need for sophisticated management systems and legal assistance due to rapid market internationalisation and for the continuous creation of new knowledge are also factors in this increased demand. Knowledge intensity is one characteristic of a KIBS firm given that knowledge is both a resource and an offering. (Sahin, 2011; Smedlund, 2008.)

KIBS can be characterised by the knowledge intensity of their value propositions or core offerings (Miles et al., 1995; Von Nordenflycht, 2010). Based on knowledge intensity, three main characteristics of KIBS can be identified: 1) they depend on professional knowledge; 2) they are sources of knowledge themselves or use knowledge to create value propositions for their customers; and 3) they mainly serve other businesses (Miles et al., 1995). These services make crucial connections between information, new technologies, management systems, customised production, sales techniques and new markets (Pardos et al., 2007). Thus, the core competence of KIBS resides in their ability to combine scientific and technical knowledge with experience-based tacit knowledge (Amara et al., 2009).

Numerous definitions of KIBS firms can be found in the literature. They are not, however, entirely consistent (Thakor & Kumar, 2000), although most agree that knowledge is the most critical resource (e.g. Burke 1995, Dawson 2000: 43; Nätti & Ojasalo, 2008a; Sahin, 2011; Doloreux & Frigon, 2020). KIBS offerings consist of products, services, and/or knowledge that helps create value for

customers (Dawson, 2000: 44-45). Value creation in these firms is based on knowledge and how it is processed (Dawson, 2000: 44; Nätti & Ojasalo, 2008b).

The intangible resources of a KIBS firm can be divided into three categories, specifically human, structural, and relational capital (Dawson, 2000: 43-44). Human resources are the people that work in these firms, and expertise is generally found in the knowledge and skills of these highly trained and qualified personnel (Von Nordenflycht, 2010; Bailey, 2011) delivering knowledge-based services (Pardos et al., 2007; Sahin, 2011). In terms of knowledge creation and transfer, this human capital is a crucial, valuable resource (Dawson, 2000: 43-44), and recruiting, developing and retaining these experts as that primary source of value is an integral part of the success of KIBS firms (Sahin, 2011). Structural capital includes the systems, processes and legally protected intellectual property of a KIBS firm. Relational capital, in turn, refers to image and reputation of a KIBS firm as well as its relationships with customers, subcontractors and other stakeholders. (Dawson, 2000: 43.)

Based on their capacity to bring knowledge and resources together to address complex challenges, KIBS firms possess a unique opportunity to facilitate value creation through high-quality knowledge-based services (Coltman & Devinney, 2013) that meet their customers' specific needs (Dawson, 2000: 46; Smedlund, 2008; Sahin, 2011). KIBS offerings typically involve extensive process complexity, and integrating customers into service provision is both important and challenging (Coltman & Devinney, 2013; Mikolon et al., 2015).

While customer relationships play a significant role in KIBS (e.g. De Brentani & Ragot, 1996; Dawson, 2000: 46; Verma, 2000; Smedlund, 2008; Sahin, 2011; Heirati et al., 2019), both formal and informal systems for taking care of customers provide a means for facilitating the effective transfer of customer knowledge between actors in KIBS firms (Nätti et al., 2006; Brivot, 2011), where teams and individual experts can act as linking pins in an otherwise loosely coordinated environment (Nätti et al., 2006). Effective knowledge management and high levels of organisational cohesion will often lead customers to perceive more value in the form of less-fragmented and more-complete services (Nätti & Ojasalo, 2008b). In addition, by applying experience accumulated from previous projects, KIBS firms can offer better services to their customers. At the same time, it is possible to reduce variable costs and increase efficiency. (Sahin, 2011.)

## 2.2 KIBS customer relationships

KIBS are created in continuous interaction and collaboration with customers (Smedlund, 2008; Janssen et al., 2018; Cabigiosu & Campagnolo, 2019). Given the relatively abstract nature of knowledge-based services and the consequent uncertainty of output, trust plays a significant role in them (e.g. Ojasalo, 2001; Laing & Lian, 2005; Jimenez-Zarco et al., 2011; Growe, 2019).

Since the delivery of KIBS requires trust, customers often prefer to work with reliable long-term partners (Karantinou & Hogg, 2009). As such, KIBS are frequently characterised by close relationships between firms and customers (Den Hertog, 2000; Cabigiosu & Campagnolo, 2019), which can reduce some of the risk in sharing the confidential knowledge required for providing KIBS (Martin et al., 1999; Karantinou & Hogg, 2009). The relationship with the customer is vital in the everyday operations (Smedlund, 2008) of the KIBS firm regardless of whether the relationships are new or established. In addition, strong relationships are particularly important in KIBS, as their quality can serve as a key factor in evaluating service provision in long-term relationships and under high-risk situations characterising KIBS (Casidy & Nyadzayo, 2019). The wide-ranging expertise at a KIBS firm will allow it to deliver premium offerings and create more value for its customers, which further encourages long-term customer relationships (De Brentani & Ragot, 1996; Alam & Perry, 2002; Nätti & Ojasalo, 2008b).

Due to this often long-term relationship, the right personal chemistry between the customer and the expert can be crucial for the success of a project (Day & Barksdale, 2003). Personal relationships, their length, and personal chemistry, are central to the development of customer relationships in KIBS firms (Karantinou & Hogg, 2009; Cameran et al., 2010). They are therefore also significant drivers of customer satisfaction (Cameran et al., 2010). However, the relationship between the firm and the customer is always changing and must be monitored continuously (Blosch, 2000).

Collaboration in business relationships is only fruitful when a customer feels that it benefits them (Jimenez-Zarco et al., 2011). Customers have two main motives for collaborating: creating services for themselves and guaranteeing quality (Martin et al., 1999). Collaboration can also enhance perceived quality, reduce insecurity and time spent on creating services (Alam & Perry, 2002), and create value for customers (Greenwood et al., 2005; Jimenez-Zarco et al., 2011; Lara et al., 2012). Collaboration with the customer accelerates mutual learning (Matthing et al., 2004) and helps firms benefit from customer expertise, which itself

increases the customer knowledge they possess and can enhance organisational performance (Jimenez-Zarco et al., 2011). As well as expertise, collaboration can provide access to customers' knowledge, resources, markets, and technologies (Ngugi et al., 2010). Thus, collaboration with the customer benefits also the KIBS firm.

In some cases, social factors can be even more important than economic factors as drivers of a customer's willingness to collaborate with a KIBS firm, particularly in later relationship phases, but no single factor by itself is sufficient for ensuring the duration of the KIBS customer relationship (Heirati et al., 2019), which creates a basis for co-creation of value. The relationship between a KIBS firm and its customers can be characterised by this co-creation of value (Kohtamäki & Partanen, 2016), in which customers participate as co-creators (Cavusgil et al., 2003; Payne et al., 2008; Eggert et al., 2018). In helping to create value, customers share responsibility for the result of the process, which can be measured by quality and increased value (Eichentopf et al., 2011). In this co-creation of value, the resources of firms and their customers are combined to develop and achieve something that the separate parties would not be able to achieve alone (Ng et al., 2016; Eggert et al., 2018). In dynamic and complex environments such as KIBS, an inability to see the value of customer relationships can lead to lost business opportunities (Ngugi et al., 2010), highlighting the purposeful construction of knowledge about each customer, as discussed in more detail in the next section.

### **2.3 Getting to know the customers: the perspective of customer knowledge construction**

Customer knowledge can be categorised as being for, about, or from a firm's customers (Gebert et al., 2003; Salojärvi & Sainio, 2006; Khodakarami & Chan, 2014). Customer knowledge therefore refers to all of the information that a firm uses to benefit its customers in a collaborative relationship, and it can also refer to understanding of the internal expertise available to meet a firm's customers' needs (Nätti & Ojasalo, 2008b). In KIBS, knowledge like this is used to improve both new and established customer relationships (Tseng & Wu, 2014).

Customer knowledge can be gathered from external and internal sources, and a KIBS firm will process this to create value for their customers (Dawson, 2000: 43; Nätti & Ojasalo, 2008b; Khodakarami & Chan, 2014). Customer knowledge is constructed, to a large extent, through interactions between a firm and its customer (Foley & Fahy, 2004; Ritala et al., 2013) that are intended to develop a deep

understanding of what is relevant for each customer. Some customer knowledge is easy to obtain, but knowledge related to more complex linkages, such as business or decision-making processes, is much more difficult to access. (Ritala et al., 2013.) The ability to create useful customer knowledge depends on a firm's ability to combine knowledge from various sources (Khodakarami & Chan, 2014), and customer relationship management systems can help integrate customer knowledge sources and facilitate customer knowledge construction (Blosch, 2000; Khodakarami & Chan, 2014).

Customer knowledge should be made as widely available within a firm as possible (Dawson, 2000: 44-45), for example through a shared database (Day, 2002). Knowledge transfer is a prerequisite for the effective utilisation of customer knowledge in KIBS (Nätti & Ojasalo, 2008b). KIBS firms should also purposefully utilise previous customer experience and accumulated customer knowledge (Ritala et al., 2013) to help guide customers' choices (Day, 2002; Ritala et al., 2013). By increasing the level of customer knowledge, a firm can develop offerings that create value for its customers (Dawson, 2000: 44–45; Salojärvi & Sainio, 2006). The more a KIBS firm can utilise its customer knowledge assets, the more value it can provide and the greater competitive advantage it will retain given that customers are likely to continue purchasing from the firm that provides the highest value (Salojärvi & Sainio, 2006). Achieving a competitive advantage is especially important for firms competing in extremely competitive environments such as in KIBS (Kriz et al., 2014).

Most importantly, perhaps, increasing customer knowledge can provide a firm with an in-depth understanding of its customers' needs (Dörner et al., 2011; Jimenez-Zarco et al., 2011), and this is particularly crucial in KIBS since such services typically require customisation to match project-specific requirements (Dawson, 2000: 46; Smedlund, 2008; Sahin, 2011). Relatedly, managing customer relationships is critical for KIBS firms to be able to address the often complex needs of their customers, and the project-based nature of their services puts significant pressure on retaining customers across project periods. While knowledge flows from other organisations enable KIBS firms to construct customer knowledge (Janssen et al., 2018), in B2B also customers gather and use experience-based knowledge to guide their complex purchasing decisions in terms of utilising references, word-of-mouth, collegial social networks, and reputation (Brashear-Alejandro et al., 2014).

The focus of the next section is purchasing criteria that form an essential part of customer knowledge construction and can therefore contribute to an understanding of KIBS customer relationships.

## **2.4 Purchasing criteria in KIBS customer relationships**

Purchasing is a crucial decision in KIBS customer relationships because it creates long-term effects that can be either positive or negative (Hallikas et al., 2013; Verville et al., 2005). Since KIBS are often relatively abstract in nature (e.g. Day & Barksdale, 1994; Van Weele, 2005), there is often a high degree of uncertainty and risk involved in purchasing them, which make it difficult for customers to assess the quality of the offering before (De Brentani, 1991; Sahin, 2011) and sometimes even after the purchase (Valk & Rozemeijer, 2009). Thus, the effects of certain KIBS are only visible in the long term.

B2B purchasing also often involves high costs (Mitchell et al., 2003; Verville et al., 2005; Hallikas et al., 2013) and can influence large groups of people (Sonmez & Moorhouse, 2010). Purchasing decisions are sometimes crucial for the firm's future (Sahin, 2011), influencing factors including the development of the firm's core competencies, organisational structure, resources, revenue, and profits (Fitzsimmons et al., 1998; Valk & Rozemeijer, 2009). Moreover, a high degree of risk is also related to confidentiality issues (Mitchell et al., 2003). Therefore, experts need to educate their customers to see the long-term value they can gain (Kowalkowski, 2011).

For all of these reasons, customers tend to be cautious when purchasing services (Atkinson & Bayazit, 2014; Bettencourt et al., 2002), and their decisions are made easier if they possess a considerable amount of knowledge about the service offering, firm, potential risks, costs, benefits, and other options (Lau et al., 2003). To increase their sense of security, customers themselves need to provide input at several stages of the purchasing process and play multiple roles throughout, such as co-designer and co-implementer (Aarikka-Stenroos & Jaakkola, 2012).

As previously outlined, personal relationships and trust form the basis of established relationships between firms and customers in complex B2B service settings such as KIBS (Lian & Laing, 2007). Building long-term relationships and trust is crucial to improving the quality of the offering as perceived by the customer (Sahin, 2011; Sillanpää et al., 2015; Growe, 2019), and positive interactions can ensure successful purchasing decisions (Hallikas et al., 2013). When selecting the provider firm, previous experience and a thorough assessment of the options are

central to the customer's decision (Melander & Lakemond, 2014). Purchasing involves many interpersonal relationships between the people involved, and each of these people has unique ways of making decisions and communicating (Price & Harrison, 2009), further emphasising the vital role of communication in KIBS.

To summarise, for KIBS customers, the order-winning purchasing criteria are often related to the relationship they have with the firm, and developing and maintaining these relationships requires the effective communication of value propositions. Since these propositions play such a crucial role in the value communicated in KIBS customer relationships, the next section will focus on them in more detail.

Table 3 summarises the literature review of this chapter by presenting the key characteristics of KIBS customer relationships.

**Table 3. Key characteristics of KIBS customer relationships in alphabetical order.**

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Key characteristics	Authors
Co-creation of value	Kohtamäki & Partanen, 2016; Ng et al., 2016
Collaboration with customers	Smedlund, 2008; Janssen et al., 2018; Cabigiosu & Campagnolo, 2019
Customer knowledge construction to understand customer needs	Dörner et al., 2011; Jimenez-Zarco et al., 2011
Deep expertise to deliver KIBS	Den Hertog, 2000; Alam & Perry, 2002; Nätti & Ojasalo, 2008b
Developing and maintaining customer relationships	Karantinou & Hogg, 2009; Cameran et al., 2010; Casidy & Nyadzayo, 2019
High risks related to purchasing	Mitchell et al., 2003; Valk & Rozemeijer, 2009; Sahin, 2011
Importance of building trust	Ford et al., 2003; Growe, 2019
Need for communicating value of the offerings	Olavarrieta & Friedmann, 2008; Kowalkowski, 2011
Need for customising the offerings	Dawson, 2000; Smedlund, 2008; Sahin, 2011
Need for open communication	Dawson, 2000; Verma, 2000; Løwendahl et al., 2001; Smedlund, 2008; Malhotra & Morris, 2009; Von Nordenflycht, 2010; Sahin, 2011; Heirati et al., 2019;
Offerings highly knowledge-intensive and often complex	Den Hertog, 2000; Miles, 2005; Muller & Doloreux, 2009; Coltman & Devinney, 2013; Mikolon et al., 2015
Outcomes visible in the long term	Valk & Rozemeijer, 2009; Sahin, 2011
Solving customers' problems	Aarikka-Stenroos & Jaakkola, 2012; Brashear-Alejandro et al., 2014
Understanding purchasing criteria of customers	Verville et al., 2005; Hallikas et al., 2013

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### **3 Communication of value**

In this chapter, value propositions as a communication practise and service modularity as a way to meet customer needs are discussed in more detail. At the end of this chapter, the role of service modularity in matching value propositions with various customer needs in KIBS customer relationships is also described.

#### **3.1 Value propositions as a communication practise**

Value propositions in professional services are a strategic tool for communicating a firm's ability to provide a valuable offering to targeted customers (Payne et al., 2017); they communicate value and help customers understand that value (Anderson et al., 2006; Eggert et al., 2018) in relation to service features, costs, quality, and delivery (Roy et al., 2009), the aim being to increase demand for the services (Bailetti et al., 2020). In B2B markets such as KIBS, value propositions not only communicate value but are also seen as promises of reciprocal benefit (Kowalkowski, 2011) that require a mutual engagement (Kowalkowski, 2011; Eggert et al., 2018), thus reflecting the multifaceted nature of KIBS customer relationships. Ultimately, the value experienced by a customer is all of the benefits they achieve divided by the costs they bear, including price, time, energy, and psychological costs (Kumar & Grissaf, 2004; Ulaga & Eggert, 2005; Kotler & Keller, 2006). Value propositions have to convince customers that the firm can provide them with various benefits over the short, medium, and long term (Bailetti et al., 2020).

Anderson et al. (2006) divide value propositions into the following groups: 1) All benefits mean that a firm lists all the benefits of the offering to the customer. This perspective requires the least knowledge about customers and competitors and lacks an understanding of active collaboration with customers. 2) Favourable points of difference mean that the value proposition's distinctiveness is highlighted (Anderson et al., 2006), which requires an understanding of the customer's value creation process and challenges related to it (e.g. Payne et al., 2008). 3) Resonating focus acknowledges that established customers prefer firms who fully understand what is relevant in their business and deliver value propositions addressing those issues (Anderson et al., 2006). Firms must design, communicate, and implement value propositions for diverse stakeholders; each stakeholder has unique needs for value creation, which necessitates the development of multiple value propositions that target these differences (Bailetti et al., 2020).

When looking at the value components of value propositions, there are four key dimensions: 1) Economic value propositions highlight cost and price-related issues. 2) Functional value propositions highlight issues such as customer experiences, the expertise of personnel, practical know-how and project management capabilities. 3) Emotional value propositions create e.g. feelings of security and safety for customers. 4) Symbolic value propositions emphasise self-expression through socially interpreted codes, e.g. the willingness to collaborate with firms with good reputations. (Rintamäki et al., 2007.)

Although the primary focus of this study does not involve service-dominant logic (SDL), it is useful to define how SDL views value propositions because they are important to the perspective. Before the emergence of SDL, product-dominant logic focused on transactions and the exchange of tangible resources. SDL introduced a new perspective involving intangible resources, the co-creation of value, and relationships (Vargo & Lusch, 2004). In this way, SDL perceives value propositions as a promise of reciprocal value between a firm and its customers (Frow & Payne, 2011; Kowalkowski, 2011). This means that they are created through resource integration, either within the firm or together with the customer and other stakeholders (Frow & Payne, 2011; Kowalkowski et al., 2012; Eggert et al., 2018), because value cannot be created independently (Vargo & Lusch, 2004). In service value propositions, value creation can take place during the exchange of transactions as well as after the exchange is complete (Lapierre, 1997; Engelseth & Törnroos, 2013).

Furthermore, SDL views value creation as a co-creative practice in which both the firm and its customer participates (e.g. Gummesson, 2008; Kowalkowski et al., 2012; Eggert et al., 2018). Ballantyne and Varey (2006), for example, extend SDL with an interaction perspective. First, customer relationships give structural support for the creation and application of knowledge resources. Second, communicative interaction develops these relationships, and third, the knowledge is needed to improve the customer's service experience. A significant mismatch between the firm's value proposition and actual co-creative behaviour can impede the collaboration between the two parties, which could lead to customer dissatisfaction and potentially even service failure (Baumann et al., 2017; Bailetti et al., 2020).

More precisely, SDL frames the formation of value propositions as the co-creative reciprocal transfer of knowledge between resource-integrating actors (i.e. the firm and its customers) (e.g. Kowalkowski et al., 2012; Skålen et al., 2015), drawing on different understandings, procedures, and engagements (Kowalkowski et al., 2012). Recent SDL literature builds on this notion of configuring resources

(Eggert et al., 2018; Vargo, 2020) as does this study. In this way, therefore, a value proposition is the outcome of a reciprocal process between a firm and one or more of its stakeholders; the process requires both parties to invest in it with mutual contributions of money, time, and effort. These investments both maintain and enhance their commitment to one another (Bailetti et al., 2020).

To better meet customer needs in B2B markets including KIBS, value propositions should be context-specific (Ballantyne et al., 2011) and reflect the history and length of each relationship (Kowalkowski, 2011). KIBS providers should utilise a customer's willingness and ability to participate as segmentation criteria and allocate their resources accordingly (Bonomi Santos & Spring, 2015). The continuous creation of new and unique value propositions, along with improving existing ones, can add significant value to a firm's value propositions portfolio. Managing a portfolio of various value propositions requires the development of a firm's ability to configure internal and external resources in order to implement its value propositions and achieve the firm's objectives (Bailetti et al., 2020).

In the next section, service modularity is examined in more detail to explore how it can be utilised as a way to meet customer needs.

### **3.2 Service modularity as a way to meet customer needs**

Over the years, a variety of definitions has been presented to capture the concept of modularity, but a universally accepted definition is still lacking (Arnheiter & Harren, 2005; Bask et al., 2010; de Mattos et al., 2019). The only clear points of consensus are that a modular offering consists of components or sub-assemblies (Gershenson et al., 2003; Bask et al., 2010) and that this allows greater flexibility and increased efficiency while keeping costs down (Garud & Kumaraswamy, 1995; Sanchez & Mahoney, 1996; Shamsuzzoha, 2011). Therefore, modularity is related to a firm's ability to customise its products and, more recently, services (Voss & Hsuan, 2009; Bask et al., 2010; De Blok et al., 2014). Product modularity is the most tangible type of modularity since modules in products are easy to understand (Bask et al., 2010).

To develop modular services, however, a firm needs an internal structure that combines the three dimensions of modularity, namely services, processes, and organisation. A modular service offering represents a visible element to the customer. Simultaneously, the other two dimensions are the means to create a modular service offering and, thus, the firm's internal functions. (Pekkarinen &

Ulkuniemi, 2008.) According to Bask et al. (2010), a modular service is reproducible and manageable and built from components that are substitutable.

Interfaces define how modules interact with each other and their specification is therefore important, because they enable the recombination of the modular components as a way of creating variety across multiple service families (Baldwin & Clark, 2000; Voss & Hsuan, 2009). In services, interfaces can be people, regulations, information or flow of information (Bask et al., 2010), planning rules, customer meetings, and organisational arrangements (De Blok et al., 2014). They serve to create both variety and coherence in service provision (Voss & Hsuan, 2009; De Blok et al., 2014). Indeed, especially in services, the existence of “soft” modules, such as people, must also be considered (Pekkarinen & Ulkuniemi, 2008; Bask et al., 2010). In addition, modularity increases transparency by making each module and interface more visible, and this could alleviate any information asymmetry by helping customers better evaluate service content in terms of potential benefits and cost-effectiveness (Vähätalo & Kallio, 2015).

Process modularity in services is vital since multiple services are often produced and consumed simultaneously (Rahikka et al., 2011). Modular processes consist of independently designed mechanisms that operate as a single entity (Pekkarinen & Ulkuniemi, 2008; Rahikka et al., 2011, Shamsuzzoha, 2011) and can relate to information processing or performing material functions (Pekkarinen & Ulkuniemi, 2008; Rahikka et al., 2011, Shamsuzzoha 2011). Modularity in this respect further allows flexibility and customisation for different situations (Bask et al., 2010).

Modularity in service provision requires that there is also modularity in the organisational structure to enable the fluent use of a firm’s core competencies (Pekkarinen & Ulkuniemi, 2008). This kind of organisational modularity comprises a series of flexible ways that internal and external resources can be used to maximise process efficiency (Pekkarinen & Ulkuniemi, 2008; Bask et al., 2010). These resources can include teams, units, other firms, and networks that add value to the offering by enabling the service provider to concentrate on the most critical tasks (Pekkarinen & Ulkuniemi, 2008; Rahikka et al., 2011). Modular offerings therefore allow customers to make choices about configuration and also enable firms to adjust value propositions according to customer needs (Voss & Hsuan, 2009; Bask et al., 2010; De Blok et al., 2014). According to Vähätalo and Kallio (2015), for example, healthcare service providers are under great pressure to respond to heterogeneous demands, and modularity can allow these varying needs to be met with the right services at the right time.

While the need for customisation is perhaps the strongest in KIBS across the whole service field, modularity offers a way to improve efficiency and costs (Vähätalo & Kallio, 2015; Nätti et al., 2017). Modularity is also a significant factor in encouraging customers to purchase KIBS (Nyadzayo et al., 2020). The ability to customise services according to customer needs is particularly challenging for firms delivering KIBS since service provision in these services often involves solving the unique problems of individual customers (Aarikka-Stenroos & Jaakkola, 2012), and modularity can address this challenge (Davies et al., 2007; Voss & Hsuan, 2009; Storbacka et al., 2013). By developing new, or improving existing, modules, firms can address specific customer needs (Pekkarinen & Ulkuniemi, 2008).

Since value propositions, especially in KIBS, should be customised according to customer needs to reflect the existing relationship, it will be discussed more in the next section.

### **3.3 Matching value propositions with various needs of customers: the role of service modularity**

A distinctive value proposition considers what customers experience and consider relevant, i.e. what creates real value for them. In practice, in KIBS, the challenge is that customers are rarely able to describe their needs and desires, some of which are unconscious or hidden (Ojasalo, 2001). Furthermore, intensive and confidential interaction between the customer and the firm influences value creation potential and value proposition emphasis (Kowalkowski, 2011). Therefore, knowledge transfer between both parties is critical for creating distinctive value propositions (Ballantyne et al., 2011).

In KIBS, offerings and value propositions often need to be customised to meet the customer's needs (e.g. Bettencourt et al., 2002; Cabigiosu & Campagnolo, 2019). Modularity allows customers to make choices of service configurations (Voss & Hsuan, 2009) and service providers to customise the service to fit the needs of their customers ((Davies et al., 2007; Voss & Hsuan, 2009) based on customer knowledge, previous experience (Amara et al., 2009), and understanding of their external environment (Holsapple, 2015), such as competitors.

KIBS are often designed to solve the customer's unique problems (Amara et al., 2009), and this highlights the importance of modularity. However, as creating distinctive value propositions requires time and effort to solve the customer's business-related problems (Anderson et al., 2006), it also requires and involves

extensive customer knowledge. Thus, value propositions should be based on a detailed understanding of which values to emphasise and when they should be highlighted. Building this level of understanding requires not only knowledge of the firm's organisational structure and capabilities but also knowledge of the customer's firm, its purchasing practices and the different roles of the members in its buying centre team. (Kowalkowski, 2011.)

Firms can provide distinctive value propositions by investing in the elements that matter most to their customers and communicating that value in a way that expresses a deep understanding of the customer's needs (Anderson et al., 2006). As proactive dialogue with customers can increase their willingness to engage in collaboration, it is also noteworthy that discontinuous personal relationships or changes in purchasing criteria can mean a downgrade in the perceived value of the provider's value propositions (Kowalkowski, 2011).

Since modularisation is very challenging in KIBS because of the abstract nature of customer knowledge involved (Nätti et al., 2017), firms therefore need to get to know their customers to ensure the successful utilisation of service modularity (Pekkarinen & Ulkuniemi, 2008; Shamsuzzoha, 2011), and this is in line with the KIBS literature, which typically emphasises tight interaction between both parties regarding service customisation (Cabigiosu et al., 2015). Customer knowledge and practical experience gained from customers is vital in developing modules that will meet different customer needs (Pekkarinen & Ulkuniemi, 2008; Shamsuzzoha, 2011; Cabigiosu et al., 2015). However, it is not easy to identify customer needs in business services. Therefore, it is crucial to understand the goals and challenges of the customer's business to create value to customers through service modularity (Pekkarinen & Ulkuniemi, 2008), enabling more effective communication of value with value propositions customised according to customer needs.

### **3.4 Summary**

KIBS are service firms that provide highly knowledge-intensive services to other firms (Muller & Doloreux, 2009), and their primary resource is knowledge (e.g. Burke, 1995; Dawson, 2000: 43; Nätti & Ojasalo, 2008a; Sahin, 2011). Customer knowledge is what such firms use to understand how to create value for customers in a collaborative relationship (Nätti & Ojasalo, 2008b), and it is largely constructed through interaction with the customer (Foley & Fahy, 2004; Ritala et al., 2013). This interaction is the basis for the co-creation of value that takes place

when the knowledge and resources of both the firm and the customer are combined (Ngugi et al., 2010; Khodakarami & Chan, 2014; Eggert et al., 2018).

Since KIBS are typically customised and complex, intensive interaction with the customer is often necessary to deliver the service (Verma 2000; Dawson, 2000: 46; Ojasalo, 2001; Malhotra & Morris, 2009). The decision to purchase is usually supported by a long-term commitment and close relationship with customers (Alam & Perry, 2002), particularly because trust plays a significant role in KIBS customer relationships (Laing & Lian, 2005; Growe, 2019) due to the high degree of uncertainty and risk involved in purchasing such services (e.g. De Brentani, 1991; Sahin, 2011).

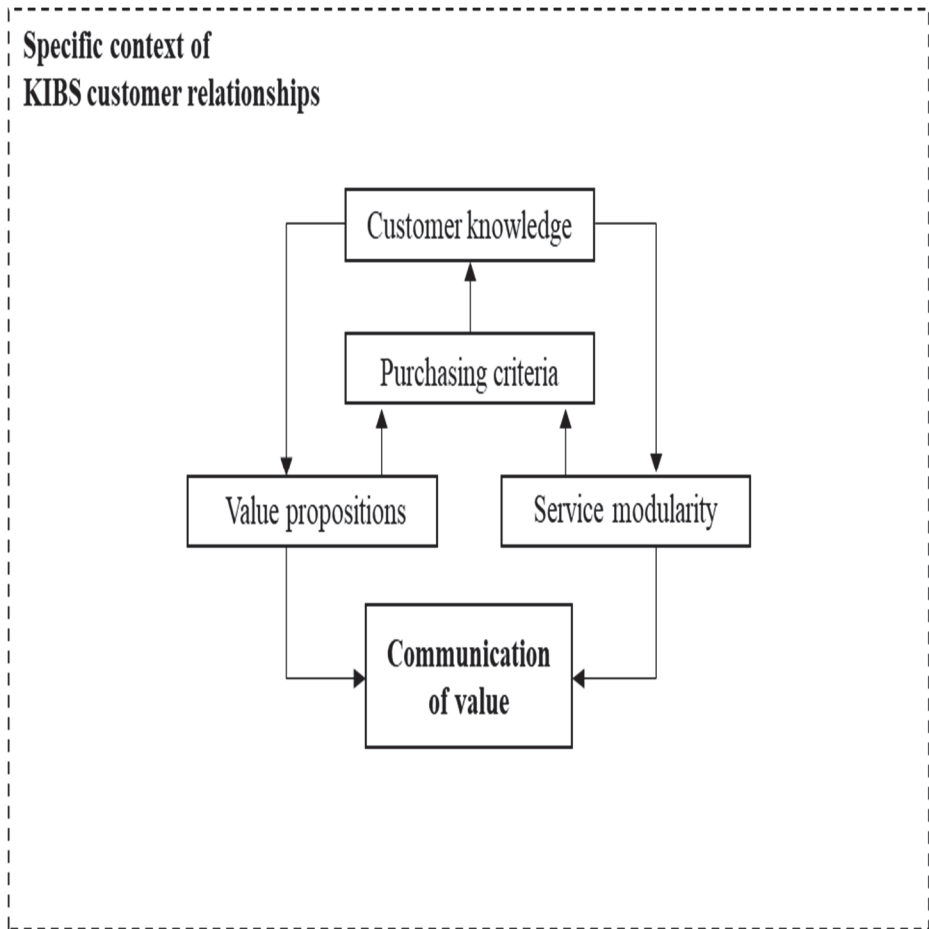
In KIBS, the order-winning criteria are often related to the firm's relationship with its customers, and the decision to purchase often rests on the many interpersonal relationships between the actors involved in the process. Each actor has a unique way of making decisions and communicating (Price & Harrison, 2009), and this emphasises the vital role of communication of value to customers through meaningful value propositions (Anderson et al., 2006).

As previously discussed, KIBS offerings and value propositions often need to be customised to be able to meet various customer needs (e.g. Bettencourt et al., 2002) or enable the more effective communication of value. In these circumstances, creating distinctive value propositions requires time and effort to build on a detailed understanding of what creates value for customers (Anderson et al., 2006), and a prerequisite for this is the construction of sufficient customer knowledge (Kowalkowski, 2011).

The following figure (Figure 2) presents the key research areas of this study, forming an understanding of the communication of value in KIBS customer relationships. KIBS firms construct customer knowledge from multiple sources and then process it (Dawson, 2000: 43; Nätti & Ojasalo, 2008b; Khodakarami & Chan, 2014). Identifying purchasing criteria is an essential part of customer knowledge construction, particularly for KIBS firms due to their relatively abstract nature and the high risk involved in purchasing them (e.g. De Brentani, 1991; Sahin, 2011). Modularity is a significant purchasing criterion in KIBS, engaging customers to purchase (Nyadzayo et al., 2020) and the same also applies to value propositions.

Customer knowledge influences the modularity and value propositions in the following ways; first, customer knowledge is critical for creating distinctive value propositions (Ballantyne et al., 2011), and, second, it is vital to ensuring the successful implementation of service modularity (Pekkarinen & Ulkuniemi, 2008; Shamsuzzoha, 2011) to meet various customer needs (Davies et al., 2007; Voss &

Hsuan, 2009; Storbacka et al., 2013). Purchasing criteria influence the communication of value in KIBS customer relationships indirectly, whereas value propositions and service modularity create a detailed understanding of how value is communicated in these relationships.



**Fig. 2. Key research areas of this study forming an understanding of the communication of value in KIBS customer relationships.**



## 4 Methodology

In this chapter, the research philosophy, case study design and abductive research process are described to justify the methodological choices of this study. Also, the empirical context of KIBS, data collection and data analysis are described in more detail.

### 4.1 Research philosophy

Based on Ingarden's work (1964), ontology, as a branch of philosophy, could be described as a view of reality—the science of what is (see, e.g. Roots, 2007; Smith, 2012: 47). Thus, ontology seeks to provide an exhaustive classification of entities in all spheres of being, including the relationships by which entities are tied together, forming larger wholes. Different schools of philosophy naturally offer different approaches to such classifications. (Smith, 2012: 47.) The philosophy of science critically examines the foundations, assumptions, methods, products, and implications of the activity called science (Moore, 2010).

This study applies moderate constructionism as a relativist ontological positioning. According to moderate constructionism, there are multiple perspectives to knowledge and truth. The aim of this study is to create new, usable knowledge through multiple perspectives. According to moderate constructionism, truth exists as a dialogue, critique, and consensus in different communities (Järvensivu & Törnroos, 2010). The parties in the KIBS customer relationship naturally see the phenomenon under study from their perspective. Therefore, it is essential to examine both the firm and customer perspectives in a KIBS relationship, as it helps to create a shared understanding of the phenomenon under study.

The meaning of epistemology relates to knowledge and its creation, which are both fundamental in research as well as the methodology used in the study (Roots, 2007). This study utilises subjectivity as an epistemological positioning. Subjectivity can be seen as an inevitable component of research. In moderate constructionism, the methodology is implemented through community-based knowledge creation, with empirical observations bounded by subjectivity (Järvensivu & Törnroos, 2010). Researchers should acknowledge their subjectivity, as it enables them to be aware of how it may be shaping their research and its outcomes (Peshkin, 1988). This study employs a case study approach based on moderate constructionism and abduction that is particularly suitable for business research (Järvensivu & Törnroos, 2010).

Next, the case study design and abductive research process of this study are described in more detail.

## 4.2 Case study design

This study utilises the multiple qualitative case study as its central method. Qualitative approaches tend to produce the most comprehensive descriptions of the phenomenon being investigated (Johnston et al., 1999; Gummesson, 2005; Myers, 2009: 5), and the case study is particularly appropriate to complex research contexts (Gummesson, 2005) and thus is a popular research method in industrial networks and marketing (Dubois & Gadde, 2002).

As a research method, the case study facilitates a detailed investigation of a phenomenon in its specific context (Yin, 2009: 180) and is, therefore, suitable for this study, conducted in KIBS. Besides, this study investigates projects and relationships between multiple firms, which especially benefits from a case study perspective because these take place in organisationally rich contexts (Johnston et al., 1999).

Case studies in industrial marketing and network research help to provide new insights on subjects from multiple perspectives (Järvensivu & Törnroos, 2010). In addition, marketing management is an area where case research could lead to substantial theoretical advances (Bonoma, 1985) and is therefore well suited to investigate the research phenomenon of this study. Thus, the current study aims to produce an in-depth understanding of the research problem through a multiple case study that allows the utilisation of cross-case analysis (Perry, 1998), too.

This study utilised a multiple case study setting in research papers I, III and IV. A single case study setting was employed in research paper II. Table 4 visualises the case firms, their customer firms as well as their relation to the research papers and to the sub-questions of this study.

**Table 4. Case firms and their customer firms.**

Firms	Type of business	In research paper	Contribution to the sub-questions
Alpha	KIBS (Education)	I	1, 2
Customer of Alpha	Health	I	1, 2
Customer of Alpha	IT	I	1, 2
Customer of Alpha	Education	I	1, 2
Beta	KIBS (Engineering)	II, III, IV	1, 2, 3

Firms	Type of business	In research paper	Contribution to the sub-questions
Customer of Beta	Metal	II, III, IV	1, 2, 3
Customer of Beta	Chemicals	II, III, IV	1, 2, 3
Customer of Beta	Water	II, III, IV	1, 2, 3
Customer of Beta	Security	II, III, IV	1, 2, 3

### 4.3 Abductive research process

In line with moderate constructionism, the research process followed in this study was abductive, i.e. the development of theoretical and empirical understanding is simultaneous (Dubois & Gadde, 2002). In an abductive research approach, the research variables are not fully known in advance, which is the situation in most cases of qualitative research. Thus, in qualitative research, the phenomenon is revealed during the research process. (Levin-Rozalis, 2004.)

An abductive research approach is a form of reasoning that fits particularly well in complex situations. It addresses many of the challenges of complexity (Dunne & Dougherty, 2016), such as those encountered in the dynamic context of KIBS. Abductive research approach is not restricted to any particular methodology as such (Lipscomb, 2012). Thus, it is a beneficial approach, especially in case research (Dubois & Gadde, 2002; Levin-Rozalis, 2004; Järvensivu & Törnroos, 2010).

This study consisted of four separate but interrelated phases during which interview data was collected. The first phase began in 2011; the first collection process was performed to gather empirical data that would later be used to investigate practices related to customer knowledge construction in KIBS customer relationships, which was discussed in research paper I. This phase emphasised the importance of the various issues that influence these relationships and how value is communicated within them.

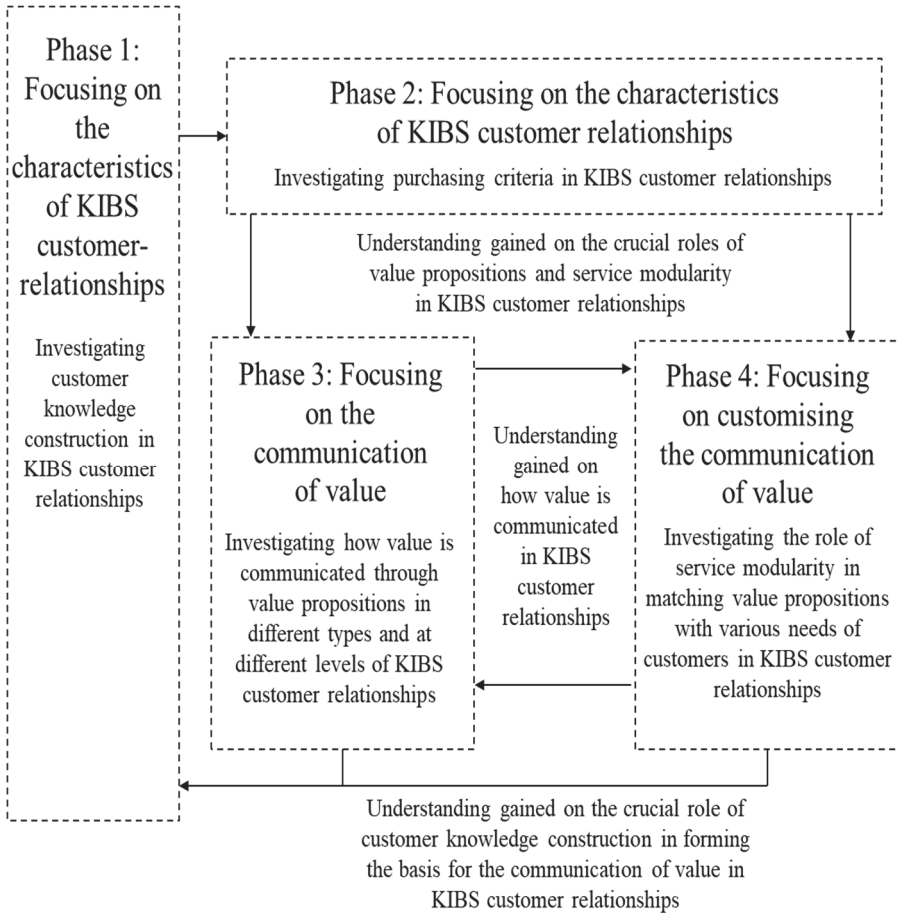
The second research phase took place between 2013 and 2015. The second data collection round was performed during the second research phase. The empirical data collected during that data collection round was utilised in research paper II, where purchasing criteria in KIBS customer relationships were then investigated in detail.

Both phases helped develop a comprehensive understanding of the KIBS customer relationships, and phase two subsequently highlighted the crucial roles of

value propositions as well as service modularity in KIBS customer relationships. In turn, this led to phases three and four as outlined below.

The third phase, which ran from 2013 to 2018, investigated how value is communicated through value propositions in different types and at different levels of KIBS customer relationships, which was investigated more in research paper III. The fourth phase ran between 2013 and 2018 and investigated the role of service modularity in matching value propositions with various customer needs in KIBS customer relationships, which was the topic of research paper IV. To a large extent, phases three and four occurred simultaneously and influenced each other.

The collected empirical data provided a multifaceted perspective of the phenomenon under study and, thus, an in-depth understanding of how value is communicated in KIBS customer relationships. The following figure (Figure 3) on the next page illustrates the research process of this study.



**Fig. 3. Research process of this study.**

#### **4.4 Description of the empirical context**

This research involves two case firms operating in KIBS. The first case firm is Alpha, a small KIBS firm that offers local education and consulting services, primarily in B2B markets. Alpha’s customers operate as experts, e.g. in technology, leadership, and project management. Alpha is included in the P-KIBS group (i.e., traditional professional services).

The second case firm, Beta, is a global KIBS firm that provides B2B engineering services and operates on a predominantly project basis in, e.g., the

energy, infrastructure, and process industry sectors. The services that Beta offers include support in the planning, implementation, and supervision of projects. Beta belongs to the T-KIBS group (i.e., technology-based services). Thus, Alpha and Beta both provide customised knowledge-intensive services to B2B customers but differ in terms of their size and business areas.

The Alpha interviews were not concerned with any particular project but were intended to gain an overview of the study's research area. The empirical data of Alpha was utilised in research paper I. Although specific projects were not discussed, three case customer relationships of Alpha were explored in research paper I, and these were later supplemented with four case customer relationships of Beta to provide a comprehensive view of KIBS customer relationships.

The empirical data from Beta revolved around five projects for four of its customers: 1) underground mining (Customer 1); 2) a concentrator (Customer 1); 3) dam modernisation (Customer 2); 4) water supply (Customer 3); and 5) wastewater (Customer 4). These projects were examined in more detail in research papers III and IV. Research paper II also utilised the empirical data of Beta. However, the perspective was not based on individual projects, but on obtaining a holistic description of purchasing criteria in KIBS customer relationships.

#### **4.5 Data collection**

Face-to-face interviews were used as the primary data collection method during this study. Through interviews, the perspectives of two case firms and their seven customer firms were obtained to provide comprehensive descriptions of the phenomenon backed with complementary information. Moreover, the study specifically sought input from two case firms to aid triangulation (Aarikka-Stenroos & Jaakkola, 2012). The customer perspective is especially relevant in this study since this study focuses on dyadic KIBS customer relationships.

Altogether, 30 interviews were conducted across the case firms and their customer businesses. During the first data collection round, semi-structured interviews were utilised. Two representatives at the first case firm, Alpha, were interviewed, as was one person from three of its customer firms. The empirical data collected from Alpha served as the pre-study. During the second data collection round, narrative open-ended questions were utilised to build a comprehensive understanding of the phenomenon. The second case firm, Beta, provided 16 employees for an interview, and 10 representatives from across four of its customer

firms also participated. The empirical data collected from Beta served as the primary data for the overall study.

The participants in both rounds were deliberately chosen to include informants in different organisational roles, ensuring diverse perspectives on the phenomenon of this study. During the interviews, the informants were also allowed to raise themes that were not mentioned by the interviewer.

The empirical data of this study is presented in table 5.

**Table 5. Empirical data of this study.**

Firms	Type of business	Informants	Date	Duration
Alpha	KIBS (Education)	Deputy General Manager	1.4.2011	40 min
		Educator	1.4.2011	35 min
Customer of Alpha	Health	Manager	23.6.2011	28 min
Customer of Alpha	IT	Manager	4.7.2011	55 min
Customer of Alpha	Education	Educator	16.7.2011	32 min
Beta	KIBS (Engineering)	Head of the unit	11.2.2013	57 min
		Engineer	18.4.2013	1 h
		Manager	29.3.2013	1 h 13 min
		Head of the department	18.4.2013	53 min
		Engineer	18.4.2013	58 min
		Head of the department	19.4.2013	40 min
		Manager	19.4.2013	47 min
		Manager	27.3.2013	56 min
		Head of the department	13.3.2013	1 h 23 min
		Engineer	18.3.2013	1h 3 min
		Engineer	18.3.2013	1 h 5 min
		Manager	5.3.2013	1 h
		Engineer	6.3.2013	1 h 4 min
		Manager	11.2.2013	50 min
		Manager	13.2.2013	48 min
Customer of Beta	Metal	Manager	13.5.2013	36 min
		Head of the department	13.5.2013	39 min
Customer of Beta	Chemicals	Site manager	13.3.2013	1 h 1 min
		Buyer	13.3.2013	52 min
		Manager	13.3.2013	1 h 20 min
Customer of Beta	Water	Manager	18.3.2013	37 min
		Head of the unit	16.4.2013	45 min
		Engineer	19.4.2013	1 h 2 min
Customer of Beta	Security	CEO	24.4.2013	1h 43 min (joint
		Manager	24.4.2013	interview)

This empirical data was collected during two of the research phases outlined above, and the first, concerning Alpha, took place during spring and summer 2011. That pre-study was undertaken as part of a master's thesis, which motivated the present author's interest in KIBS, and those early results proved exciting and served to trigger the current study. The empirical data of Alpha includes five interviews that were conducted in Finland from April to July 2011.

The second data collection round, with Beta, took place during spring 2013 as part of the ModuServ research project, "Modularity in Business Services to Co-Create Value within Collaborative Networks", where the present author worked as a project coordinator. The empirical data of Beta consists of 25 interviews that were conducted in Finland from February to May 2013.

The interviews were supplemented with multiple secondary data sources. Since the data collection with Beta was performed in connection with the ModuServ project, the secondary data includes management team meetings, workshops and internal project meetings with related memos. With Alpha, meetings and related memos were also used. In addition, brochures of the case firms and corporate websites of the case firms and their customer firms were utilised. All of this information helped triangulate the data and provide a more in-depth description of the phenomenon in question (Bonoma, 1985; Perry, 1998).

The secondary data sources of this study are presented in the following table (Table 6).

**Table 6. Secondary data sources of this study.**

Source of data	Type of the document / occasion	Date
Alpha	Meeting and related memo	1.4.2011
Alpha	Meeting and related memo	End of the year 2011
Alpha	Meeting and related memo	May 2012
Alpha	Webpages	
Alpha	Brochures	
Customer of Alpha (Health)	Webpages	
Customer of Alpha (IT)	Webpages	
Customer of Alpha (Education)	Webpages	
Beta	Management team meeting and related memo	27.8.2012
Beta	Management team meeting and related memo	31.1.2013
Beta	Management team meeting and related memo	10.9.2013
Beta	Meeting and related memo	20.9.2012
Beta	Meeting and related memo	21.1.2013
Beta	Workshop	1.10.2012
Beta	Workshop	18.2.2013



Source of data	Type of the document / occasion	Date
Beta	Workshop	10.6.2013
Beta	Workshop	7.10.2013
Beta	Webpages	
Beta	Brochures	
Customer of Beta (Chemicals)	Webpages	
Customer of Beta (Metal)	Webpages	
Customer of Beta (Water)	Webpages	
Customer of Beta (Security)	Webpages	
ModuServ project	Seminar	23.4.2012
ModuServ project	Internal project meeting and related memo	31.5.2012
ModuServ project	Internal project meeting and related memo	15.6.2012
ModuServ project	Internal project meeting and related memo	2.8.2012
ModuServ project	Internal project meeting and related memo	7.8.2012
ModuServ project	Internal project meeting and related memo	20.8.2012
ModuServ project	Internal project meeting and related memo	7.9.2012
ModuServ project	Internal project meeting and related memo	28.9.2012
ModuServ project	Internal project meeting and related memo	11.10.2012
ModuServ project	Internal project meeting and related memo	16.11.2012
ModuServ project	Internal project meeting and related memo	18.1.2103
ModuServ project	Internal project meeting and related memo	6.2.2013
ModuServ project	Internal project meeting and related memo	15.2.2013
ModuServ project	Internal project meeting and related memo	12.4.2013
ModuServ project	Internal project meeting and related memo	16.5.2013
ModuServ project	Internal project meeting and related memo	31.5.2013
ModuServ project	Internal project meeting and related memo	14.10.2013

## 4.6 Data analysis

For this dissertation, data analysis was specific to each research paper, but there are some common points in the approaches used.

In the initial phase of the analysis, the recorded interviews were transcribed, and then all of the transcripts were reviewed multiple times to obtain a robust first impression of the data. Data analysis was performed after gaining this good overall understanding of the empirical data. Research paper II did not focus on specific cases, and the data set was analysed with colour codes. The themes in the analysis were not predetermined; rather, they were allowed to emerge from the data.

Within-case and cross-case analyses were carried out in research papers I, III and IV. In the within-case analysis, the data set was analysed with colour codes, and the predetermined themes helped to categorise the empirical data to illuminate

the topic in question. After gaining a holistic perspective of each topic, the aim was to develop a more detailed understanding by conducting cross-case analysis, which helped identify major differences and similarities by comparing the cases in question. This enabled a deeper examination of the topic to ensure a comprehensive understanding of it.

Within-case and cross-case analyses helped strengthen the chain of evidence of this study, which was made as transparent as possible through the use of original quotations from the empirical data. This was intended to increase the validity of the study and support the results (Perry, 1998).

As outlined, the empirical data was subsequently supplemented with multiple secondary data sources about the case firms and their customer firms. This secondary data was compared with the results of the analysis, serving as a means of triangulation, and to gain a multifaceted understanding of each topic (Bonoma, 1985; Perry, 1998).

## 5 Review of the results of the research papers

The aim of this study is to understand the communication of value in KIBS customer relationships by drawing on research in the areas of value propositions, service modularity, customer knowledge construction and purchasing criteria. Thus, the main research question is: *How is value communicated in KIBS customer relationships?*

Research paper I describes how customer knowledge is constructed in KIBS customer relationships. Research paper II, on the other hand, investigates purchasing criteria in KIBS customer relationships. Research papers I and II form the basis for understanding the characteristics of KIBS customer relationships. Research paper III concentrates on how value is communicated through value propositions in different types and at different levels of KIBS customer relationships. Finally, research paper IV investigates the role of service modularity in matching value propositions with various needs of customers in KIBS customer relationships. Hence, research papers III and IV create a more detailed understanding of how value is communicated in KIBS customer relationships.

Table 7 summarises the key issues of the original publications (Research papers I–IV) included in this study. After that, a short review of the results of the research papers is presented in this chapter.

**Table 7. Summary of the key issues of the original publications in this study.**

	Research paper I	Research paper II	Research paper III	Research paper IV
Paper-specific RQ	How customer knowledge is constructed in knowledge-intensive customer relationships?	What factors influence business customers' KIBS purchasing decisions?	1) What value dimensions and related value components are highlighted in the value proposition of a KIBS firm, both at relationship and project levels?, 2) how value propositions can differ between new and established KIBS customer relationships?, and 3) what is characteristic to evolution of value proposition in the KIBS context?	How service modularity helps to formulate value propositions matching with varied customer needs in KIBS?
Research gap	The existing literature is mainly discussing customer knowledge from the perspective of management. Only little is known about customer knowledge construction in KIBS customer relationships.	The existing literature concentrates to a large extent on the purchasing of products. The few studies that examine the purchasing of professional services or KIBS are either conceptual, lacking empirical evidence, or do not shed light on the issues that influence purchasing decisions.	The existing literature is scarce on how different value components are emphasised in different types of KIBS customer relationships and especially what kinds of value propositions KIBS firms create (or should create) for their customers at different phases of the relationship.	There is no agreement in the existing literature on what makes value propositions persuasive for customers. Moreover, the existing literature is relatively vague about how modularity can be used in the process of developing value propositions.

	Research paper I	Research paper II	Research paper III	Research paper IV
Key results of the research paper	Identifying a variety of practices to construct customer knowledge in KIBS customer relationships. The basic communication practises are emphasised, but also many other practices were identified, such as business simulations, customer visits, documentation of project meetings and alternative ways of working.	Eight most critical purchasing criteria were identified in KIBS customer relationships: value propositions, perception of service quality, perception of potential risks, the potential for customisation, quality customer relationships, individual preferences, geographic proximity and the availability of information.	Providing a comprehensive description of how the composition of value propositions changes from standardised project-focused value propositions towards customised relationship-focused value propositions as the customer relationship evolves, thus, reflecting the customer relationship in question. The role of individual experts was identified as being crucial in the evolution of KIBS customer relationships. It was also identified that in co-creation of value propositions, a more developed relationship is needed.	A KIBS firm needs to have a clear overview of its knowledge as well as internal and external resources and how these can be configured to obtain the desired customisation of services and related value propositions matching with various needs of customers with different emphasis on quality, time and cost advantages. It was also identified that in co-creation of value propositions, the role of a KIBS firm is often more of a value facilitator.
Contribution to the main RQ of this study	Understanding the key characteristics of KIBS customer relationships and their influence on the communication of value in these relationships.	Understanding the key characteristics of KIBS customer relationships and their influence on the communication of value in these relationships.	Understanding how the communication of value varies and evolves in new and established KIBS customer relationships both at relationship and project levels.	Understanding how the communication of value can be matched with various needs of customers in KIBS customer relationships.

## **5.1 Constructing customer knowledge in knowledge-intensive customer relationships (Research paper I)**

Research paper I was written by the present author alone. This research paper was published in the *Knowledge and Process Management* in 2020. The present author had the main responsibility for planning, collecting and analysing the empirical data, as well as for planning and writing the research paper.

Research paper I aimed to answer the sub-questions RQ1: *How do the characteristics of KIBS customer relationships influence the communication of value?* and RQ2: *How the communication of value varies and evolves in new and established KIBS customer relationships both at relationship and project levels?*

Research paper I utilised a qualitative multiple case study as its research method, which was organised around seven case customer relationships to allow within-case and cross-case comparisons. This research paper utilised the empirical data of both Alpha and Beta.

Research paper I describes typical characteristics of KIBS customer relationships and proposes different practices to construct customer knowledge in KIBS customer relationships. The results of this research paper emphasise the importance of basic communication practices, such as collaboration and meetings. The results of this research paper also revealed many other practices of customer knowledge construction, including, e.g. business simulations, customer visits and queries, documentation of project meetings, and alternative ways of working. Customer knowledge construction builds understanding that can support organisational decision making; once a KIBS firm knows its customers and their needs, they can make smarter choices about how to communicate value to them based on each customer's characteristics and allocate their resources accordingly.

Research paper I contributes to the literature on KIBS customer relationships by enhancing understanding of their characteristics. The existing literature presents that a firm primarily constructs knowledge about its customers by engaging in different communication practices with them. This research paper proposes additional ways in which such knowledge can be constructed. The role of customer knowledge is especially emphasised in the development of customised value propositions.

For managers, the results of research paper I might be interesting and useful since customer knowledge construction is central in understanding customers, developing customer relationships, enhancing service quality and customer service, customising the offering and related value propositions, and guiding the customer's

choices. Thus, the results of this research paper help KIBS firms build a source of competitive advantage with help of customer knowledge, which is a critical asset for firms, especially in a fast-changing knowledge-intensive environment, such as in KIBS.

## **5.2 Purchasing of knowledge-intensive business services: a case study of relevant factors (Research paper II)**

Research paper II was co-authored with D.Sc. Mekhail Mustak. This research paper was published in the *International Journal of Procurement Management* in 2017. The present author's role as a responsible author was for planning, collecting and analysing the empirical data, as well as for planning and writing the research paper. The co-author gave feedback and participated in the planning and writing the research paper.

Research paper II explores purchasing criteria in KIBS customer relationships. This research paper aimed to answer the sub-questions RQ1: *How do the characteristics of KIBS customer relationships influence the communication of value?* and RQ3: *How can the communication of value be matched with various needs of customers in KIBS customer relationships?*

In terms of research methodology, research paper II employed a qualitative case study method. This research paper included the empirical data collected from Beta. However, the research setting of this research paper was not based on projects but concentrated on obtaining a holistic description of purchasing criteria in KIBS customer relationships.

Research paper II identified the eight most significant purchasing criteria in KIBS customer relationships: value propositions, perception of service quality, perception of potential risks, the potential for customisation, quality customer relationships, individual preferences, geographic proximity, and the availability of information.

The results of research paper II contribute to the literature on KIBS customer relationships by increasing understanding of their characteristics as well. As the existing literature on purchasing criteria mostly revolves around the purchases of tangible items, this research paper explores which purchasing criteria are significant in KIBS customer relationships. Also, as purchasing criteria have been examined here within KIBS, which has received only a little empirical attention in the marketing literature, this research paper also generates context-specific knowledge that contributes to the existing literature.

Since the results of research paper II revealed the importance of value propositions and the potential for customisation among the most important purchasing criteria in KIBS customer relationships, it acted as a basis for exploring these topics further in research papers III and IV.

### **5.3 Evolving value propositions in knowledge-intensive business services (Research paper III)**

Research paper III was co-authored with Professor Satu Nätti, and it was published in the *Journal of Business & Industrial Marketing* in 2018. As a responsible author, the present author had the main responsibility for planning, collecting and analysing the empirical data, as well as for planning and writing the research paper. The co-author gave feedback and participated in the planning and writing the research paper.

The aim of research paper III was to answer the sub-questions RQ1: *How do the characteristics of KIBS customer relationships influence the communication of value?* and RQ2: *How the communication of value varies and evolves in new and established KIBS customer relationships both at relationship and project levels?*

Research paper III was built around five cases, which were real-life projects delivered by Beta to four of its customers. Every project examined (and related customer relationship, either in its initial or established phase), was considered as one case. Both the KIBS firm and customer perspectives were analysed within each case.

The key results of research paper III offered a comprehensive description of how the composition of value propositions changes from standardised project-focused value propositions towards customised relationship-focused value propositions as the customer relationship evolves. Furthermore, the results of this research paper emphasise that value propositions reflect, to a large extent, the customer relationship in question. In addition, according to the results of this research paper, the role of individual experts is crucial in the evolution of KIBS customer relationships. The results of this paper also propose that in co-creation of value propositions, a more developed relationship is needed.

Research paper III contributes to the literature on KIBS customer relationships by providing a better understanding of the co-creative development of value propositions in KIBS customer relationships. This research paper also provides new knowledge on the composition of value propositions in KIBS customer relationships by suggesting how these value components are combined in different



types and at different levels of KIBS customer relationships. For managers, understanding the phase of the customer relationship and how it influences the composition of value propositions, and thus their communication is crucial.

Since the results of research papers II and III revealed the importance of the potential for customisation, i.e. service modularity, this topic was researched more thoroughly in research paper IV to investigate the phenomenon under study further.

#### **5.4 Matching value propositions with varied customer needs: the role of service modularity (Research paper IV)**

Research paper IV was published in the *Knowledge and Process Management* in 2018. The research paper was co-authored by Associate Professor Thomas Frandsen and by Professor Juliana Hsuan. The present author had the main responsibility for planning, collecting and analysing the empirical data, as well as for planning and writing the research paper. The co-authors gave feedback and participated in the planning and writing the research paper.

Research paper IV aimed to answer the sub-questions RQ1: *How do the characteristics of KIBS customer relationships influence the communication of value?* and RQ3: *How can the communication of value be matched with various needs of customers in KIBS customer relationships?*

A qualitative multiple case study and the empirical data of Beta were utilised in research paper IV. The empirical data consists of five projects conducted by Beta with four of its customer firms. Two of the projects were unique and complex, while two of the projects were more standardised. This kind of research setting allowed within-case and cross-case comparisons to be made.

According to the key results of research paper IV, due to the often complex service offerings in KIBS, the KIBS firm needs to have a clear understanding how to configure its knowledge and resources to attain the desired customisation of services and related value propositions. Configuring knowledge and resources helps formulate the right kind of value propositions for different customers with different emphasis concerning quality, time, and cost advantages. The results of this research paper support the results of research paper III by identifying that in co-creation of value propositions, the role of a KIBS firm is often more of a value facilitator.

Research paper IV contributes to the literature on KIBS customer relationships by applying the concept of service modularity to KIBS customer relationships and combining service modularity with a value proposition in the KIBS context. This

research paper proposes how value propositions can be customised and how service modularity can be utilised in these efforts. This research paper also generates context-specific knowledge on the process of combining knowledge and resources to match value propositions with various needs of demanding business customers.

## 6 Conclusions

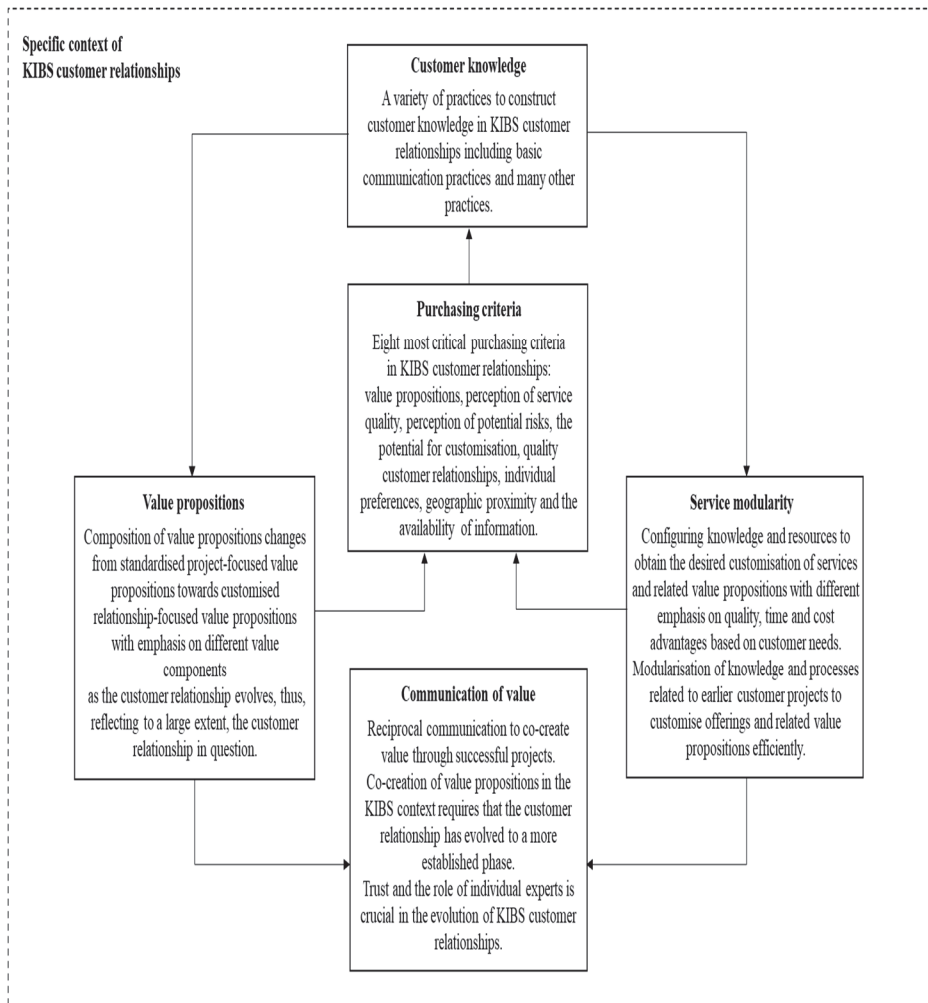
This chapter presents the answers to the research questions as well as theoretical contributions and managerial implications. Thereafter, evaluation of the study, limitations and suggestions for future research conclude this study.

### 6.1 Answers to research questions

The phenomenon investigated in this study is the communication of value in KIBS customer relationships. To form a comprehensive understanding of the phenomenon, the first research question concentrates on understanding the characteristics of KIBS customer relationships influencing the communication of value. The latter two research questions concentrate in more detail on the communication of value with perspectives of value propositions and service modularity. Thus, the sub-questions of this study are:

1. *How do the characteristic of KIBS customer relationships influence the communication of value?*
2. *How the communication of value varies and evolves in new and established KIBS customer relationships both at relationship and project levels?*
3. *How can the communication of value be matched with various needs of customers in KIBS customer relationships?*

Figure 4 illustrates the summary of the results of this study regarding the communication of value in KIBS customer relationships and the connections between the chosen perspectives. After that, the answers to the research questions are described in detail.



**Fig. 4. Communication of value in KIBS customer relationships.**

*RQ1: How do the characteristics of KIBS customer relationships influence the communication of value?*

The characteristics of KIBS customer relationships influence the value proposition and how the value proposition is communicated in general. Since the characteristics of KIBS customer relationships and the communication of value are interrelated, it

is necessary to take a look at the characteristics of KIBS customer relationships to understand the communication of value in these relationships.

Several matters make a foundation on any relationship solid. These matters include trust and communication. These are also crucial for the relationship-building at the very beginning of the KIBS customer relationship. The customer relationships in KIBS are to a large extent built the old-fashioned way; by communicating and talking. However, the need for quality communication does not end at any phase of the KIBS customer relationship. As with any other relationship, KIBS customer relationships require work from the start and continue to need a lot of work to function smoothly.

The implementation of a project is essentially continuous verbal and non-verbal communication between the customer and the KIBS firm, and the better the communication is, the better the outcome usually is. This ongoing communication is incredibly vital since projects in KIBS customer relationships are typically intense due to their complexity, tight schedules and high risks related to purchasing. Therefore, planning and arranging things in constant communication between the KIBS firm and the customer is required throughout the project. It takes extensive communication to arrive at a mutually agreeable plan regarding the implementation of a project.

Thereby, it is crucial to understand customer knowledge construction. The two case firms constructed their respective customer knowledge using a range of similar basic communication practices such as collaboration and meetings. There are also many other practices related to customer knowledge construction, including customer queries, business simulations, documenting project meetings, alternative ways of working as well as information and feedback systems. In addition, the involvement of a consultant in the process of gathering all available information from different sources can also be an essential practice in customer knowledge construction. However, there is no singular practice for customer knowledge construction. On the contrary, there are many such practices, and they are not exclusive, meaning that one or a combination of practices can be involved.

Purchasing criteria are particularly important due to the complex and relatively abstract nature of KIBS and because purchasing is a critical decision in B2B markets. As firms purchase KIBS increasingly often, a clear understanding of purchasing criteria is fundamental. This study found eight significant purchasing criteria in KIBS customer relationships, namely value propositions, perception of service quality, perception of potential risks, the potential for customisation, quality

customer relationships, individual preferences, geographic proximity, and the availability of information.

Some of these factors, such as geographic proximity and availability of information, are relatively easy to evaluate in advance. However, others are subjective perceptions and more challenging to predetermine, particularly perceptions about quality and the associated risks. These purchasing criteria can be further grouped into service- and service provider-related categories. Value propositions, perceptions about service quality and risks, and customisation potential can be termed as service-related criteria. At the same time, the relationships, individual preferences, geographic proximity, and the availability of information can be categorised as relating to the KIBS provider itself. In practice, these distinctions are not so straightforward, and not all the criteria influence every purchasing decision. Instead, the influence of any criterion or combination of criteria varies depending on the situation. Understanding of these purchase criteria in KIBS customer relationships can be utilised to understand how value in this environment should be communicated.

*RQ2: How the communication of value varies and evolves in new and established KIBS customer relationships both at relationship and project levels?*

Value creation in KIBS revolves around a firm's ability to communicate the value of their offering to their customers and customise their value propositions accordingly; the distinctiveness of a value proposition often determines whether a customer chooses to purchase a service or not. Thus, value propositions are especially crucial at the beginning of the customer relationship, and they evolve along with the customer relationship. In line with this, communication between the KIBS firm and the customer is imperative both in new and established customer relationships.

Customers in B2B markets are increasingly different; meaning that their offerings and processes are highly specialised. Therefore, there is a need for deep and specific expertise since delivering KIBS involves customer-specific problem solving as well as extensive and intense communication with the customer. The better the KIBS firm knows its customer, the better they can understand the customer and their organisational structure and culture, who makes decisions, etc., which allows that collaboration enhances between people. Another critical issue in B2B markets is the question of how to build ties after the customer relationship and

collaboration have begun, aiming at the development of an established customer relationship.

According to the results of this study, value propositions in new KIBS customer relationships tend to emphasise project-focused, short-term needs and demands, and a value proposition that will persuade customers to purchase KIBS relies on good organisational and individual expert references at the very start. Project-related value components hold a remarkable role at this phase, highlighting what can be achieved in any first phase. In contrast, value propositions focus on the essential procedures and principles of conducting that particular project. This notion challenges the idea that value propositions are always co-created through interactions with the customer. Co-creation of value propositions in KIBS requires that the customer relationship has evolved to a more established phase.

As the customer relationship evolves, so does the nature of value. It becomes more about the interactive composition of value propositions with reciprocity recognised on both sides of the relationship, and the role of individual experts is more strongly emphasised. The emphasis in an established KIBS customer relationship moves from the short-term, single project to a value creation constant in which customer commitment to individual experts holds a crucial role in relationship development and perceived trust.

These evolving relationships then become the scene of value proposition co-creation. In this way, the distinction between single projects and long-term relationships becomes blurred, and the nature of the value proposition is more fluid and under constant negotiation; it is not just a narrow representation of the KIBS firm's core competences.

*RQ3: How can the communication of value be matched with various needs of customers in KIBS customer relationships?*

Service modularity enables KIBS firms to customise their value propositions according to the needs of their customers and thus make the communication of value more effective. KIBS are often created from tacit knowledge of individual experts, which is often difficult to transfer. Nevertheless, modularity may offer a way of enhancing communication regarding the offerings and the value a firm can provide.

For the customer, knowing their needs and being able to communicate them to the KIBS firm is as important as for the KIBS firm to construct customer knowledge, which creates a basis for making a connection with the customer on a

deeper level. Eventually, getting to know the customer comes down to communication, which means that the more there is interaction, the more likely the customer relationship will provide the customers with what they need and want. Negotiation of the content and implementation of a project requires open communication, and therefore both parties need to be able to collaborate effectively to create a satisfying outcome. Thus, willingness for genuine collaboration and customer-oriented mindset are essential characteristics for striving for the profound KIBS customer relationship, where both parties are adjusting their processes, which is ultimately based on excellent customer knowledge.

KIBS firms typically address complex business challenges, which require the management of multiple customer relationships with different value propositions; modularity can help in these efforts. Configuring knowledge from both internal and external resources enables a KIBS firm to create the right kind of value propositions for different customers. The internal modules include e.g. experts, units, organisational routines, and IT tools of a KIBS firm. External resources include the actors in the network of a KIBS firm.

In complex projects, interfaces such as people and knowledge and skills are emphasised, whereas, in simple projects, more standardised modules and the importance of processes are emphasised. Interfaces where these internal and external resource modules could be configured lay at the project management level and between different modules.

Effective knowledge management and transfer are also emphasised in KIBS where the tacit knowledge of experienced experts could be made more explicit e.g., through IT tools and mentoring, which would simplify the configuration of different knowledge and resource modules.

Customers interact with firms in many ways. To understand these interactions, a firm needs to gain knowledge about their customers, which then forms the basis of their understanding of the customers' experienced value. This then supports the firm's relationship with the customer and enables them to customise their offering and adjust the related value proposition according to each customer's needs. Without knowing the customer and constructing knowledge about them, a firm will find it very challenging to communicate effectively to customers the value they can offer.

The role of the KIBS firm is essential in configuring knowledge and resources to develop value propositions. Thus, while the customer is involved in the process, much of the configuration of services occurs on the side of the KIBS firm based on customer-specific needs.



For simple projects, tangible resources play a more critical role than intangible knowledge assets, and more standardised modules and the importance of processes are emphasised. In more complex projects, resources such as people, knowledge and skills are highlighted. In terms of value propositions, complex projects emphasise value components related to quality and time over simple projects that emphasise cost advantages instead. Thus, different combinations of value components are required to achieve the desired value proposition for the customer and these constellations change according to the phase of the customer relationship through which customers are convinced of the KIBS firm's reliability to ensure effective delivery of services.

*Main RQ: How is value communicated in KIBS customer relationships?*

In order to communicate value in KIBS customer relationships, it is necessary to find out what the customer's needs are, which requires intensive knowledge transfer through communication. In KIBS customer relationships, communication is also required beyond the sales phase of a project. Instead, there is a need for constant interaction and collaboration throughout the planning and implementation process of a project, as well as developing and maintaining the customer relationship after the project. Value creation and taking care of the customers are at the centre of the development of KIBS customer relationships, which can create a source of competitive advantage since it is often difficult to differentiate the offerings from the competing offerings as such.

An established KIBS customer relationship is often characterised by honed collaboration. It is crucial to treat existing customers well, as maintaining a solid customer base is the most advantageous for the KIBS firm. In addition, annoying existing customers might result in adverse effects on the networks of the KIBS firm. The long-term customer is often willing to pay more than new customers because smooth collaboration and the intimacy of the customer relationship is more valuable to the customer than having to work with an untrusted party, especially considering the role of confidentiality in KIBS.

The relationship between the KIBS firm and its customer is primarily characterised by the need to build trust. Establishing trust with the customers nurtures long-term, mutually beneficial relationships. Without trust, a relationship with the customer cannot develop. The core, especially in KIBS customer relationships, must therefore be in the continual construction of mutual trust, which is a gradual process.

As trust develops, the customer often becomes more committed to the KIBS firm and communicate more, thus improving the process and the outcome of the project. For the customer relationship to be successful, it requires a lot of knowledge about the other party to make the collaboration smooth. The role of customer knowledge construction and understanding the customer's purchasing criteria is crucial for KIBS firms to be able to influence the customers' perceived value and to communicate value to the customers more effectively.

Projects in KIBS customer relationships can be built through contracts based on a call for tenders or personal relationships. New relationships between the KIBS firm and the customer are usually based on contracts. Still, the dynamic of the relationship may change over time, moving from contracts to established personal relationships, which often leads to a constant flow of new projects through personal relationships.

Being trustworthy is fundamental to building trust and is a crucial quality of independent experts working with customers. Trust often culminates in the form of an individual expert with whom the customer is accustomed to working. The customer trusts the expert to make the right decisions when designing and implementing a project. Good personal connections between the customer and the KIBS firm also create ties and switching costs, which have a central role in B2B markets since it takes a lot of time and effort to make a new relationship work as well. If the collaboration works well, the switching costs from a functioning relationship are high.

On the other hand, lack of trust often creates many hardships within the customer relationship. In line with this, if a KIBS firm is not able to implement its value propositions in practice, they could lose their customer's trust. If trust between the customer and the KIBS firm is damaged for some reason, it is often hard to earn it back, which might ultimately destroy the relationship with that customer.

Value propositions communicate the value of the KIBS firm's offering to its customers in relation to its competitors, i.e. what value is offered and in what respect it is better than the competitors. Therefore, value propositions should be individually customised to each customer's needs. The process of interpersonal communication cannot be regarded as a phenomenon, which simply happens; instead, attention must be paid to getting it right. Unfortunately, misunderstandings can occur at any stage, but these can be reduced through regular, clear communication. Communication also reduces misunderstandings and dissatisfaction that would otherwise grow into large and unmanageable issues.

The importance of communication cannot be overemphasised: there is no chance the customer relationship will work without it. Communication occurs between different actors, i.e. it is reciprocal rather than one-directional, and so open and reciprocal communication is necessary between the KIBS firm and its customer to co-create value through successful projects, which is the main goal in KIBS customer relationships. However, this study challenges the idea that value propositions are always co-created through interactions with the customer. Rather, co-creation of value propositions in KIBS requires that the customer relationship has evolved to a more established phase. The role of a KIBS firm is often more of a value facilitator, especially if the relationship is less developed.

According to the results of this study, value propositions are about communicating an attractive and distinctive view of the firm and its offerings and using that to convince customers to purchase the offering and to collaborate with the firm. In order to succeed in this, KIBS firms must continuously listen to their customers' needs and construct customer knowledge to be able to implement value propositions through customer experiences. In B2B markets, it is crucial to succeed in projects because of the essential role of word-of-mouth and customer references, which either improve trust or hinder it.

Customisation is expensive but essential for a KIBS firm. Therefore, modularisation of the firm's processes and expertise regarding earlier customer projects is crucial to enable the utilisation of those modules in the development and implementation of offerings and related value propositions for future customers, which releases the KIBS firm's energy for other operations. Thus, KIBS firms need to thoroughly understand what customers value most in their offerings and how they can effectively combine their knowledge and resources to communicate the value propositions that will please their customers.

It is also crucial to continuously refine value propositions based on customer feedback. To do this, it is necessary to think from the customer's perspective both organisationally and individually. It is also crucial to track changes in competitors' value propositions and use that information to refine the KIBS firm's value propositions.

In summary, communication of value is especially important at the beginning of the new customer relationship and the sales phase of the project. At the beginning of the project, it is vital to communicate all the things necessary to carry out the project successfully, creating a basis for the co-creation of value. Communication of value continues at all phases of the relationship, from a new relationship to an established one. Moreover, the value proposition evolves continuously according

to different customers, their needs, and according to the phase of the customer relationship.

## **6.2 Theoretical contributions**

This study contributes to the scientific discussion on KIBS customer relationships with perspectives on value propositions, service modularity, customer knowledge construction and purchasing criteria, contributing both individually and collectively to the literature on KIBS customer relationships. The approach of this study concerning the communication of value is novel and has not been discussed extensively in the literature of KIBS customer relationships from these perspectives. The results of this study propose three main theoretical contributions on how value is communicated in KIBS customer relationships.

*Firstly*, this study advances the literature of KIBS customer relationships by providing a better understanding of the co-creative development of value propositions in KIBS customer relationships. Existing studies of SDL emphasise the customer's role in the co-creation of value (c.f. Vargo & Lusch, 2004; Frow & Payne, 2011; Kowalkowski, 2011; Aarikka-Stenroos & Jaakkola, 2012; Kowalkowski et al., 2012; Smith et al., 2014; Skålén et al., 2015; Payne et al., 2017; Eggert et al., 2018; Vargo, 2020). While maintaining that value is co-created, this study challenges the idea that value proposition is always and at every phase of the customer relationship co-created. The results of this study show that often the KIBS firm hands the value proposition to the customer by defining its essential characteristics and offerings, and customers are involved in the creation of services mostly in the early phases of the project. The KIBS firm manages the rest of the value creation process after gaining enough knowledge about the project. The KIBS firm wants to act as the orchestrator by configuring knowledge and resources from different units within itself and its contractors. Hence, value propositions are not negotiated or co-created with the customer; for the co-creation of value propositions in this specific KIBS context, a more developed relationship is needed. Thus, in co-creation of value propositions, the role of a KIBS firm is often more of a value facilitator, especially if the relationship is less developed.

Furthermore, this study provides new knowledge on the composition of value propositions in KIBS customer relationships. The existing literature concentrates on determining and describing the value components in value propositions, e.g. in retailing and manufacturing (c.f. Anderson et al., 2006; Rintamäki et al., 2007; Roy et al., 2009), but the existing literature hardly addresses value components in KIBS

customer relationships. This study suggests how these value components are combined in different types and at different levels of KIBS customer relationships. While the existing literature emphasises that value propositions often communicate economic benefits and monetary value (c.f. Anderson et al., 2006; Ranta et al., 2020), the results of this study show that in new and project-focused relationships, project-related components and short-term needs play a significant role in the early phases of the customer relationship to highlight what can be achieved in initial activities. As the relationship evolves, the value propositions shift from being standardised and project-focused to being customised and relationship-oriented with different emphases on quality, time and costs components that reflect the customer in question. The results of this study reveal that value propositions in complex projects concentrate on components concerning quality and time, whereas simple projects tend to emphasise more cost advantages. Thus, this study contributes to the literature of KIBS customer relationships by showing that different combinations of value components are required to achieve the desired value proposition for the customer and that these constellations change according to the phase of the business relationship.

*Secondly*, this study advances the literature of KIBS customer relationships by applying the concept of service modularity to KIBS customer relationships and combining service modularity with a value proposition in these relationships. When comparing the results of this study to previous research, the results of this study are consistent, e.g. with the literature on modularity in the health care sector (see, e.g. De Blok et al., 2014; Vähätalo & Kallio, 2015). The existing literature describes how service configurations enable a firm to customise its offering according to customer needs (c.f. Pekkarinen & Ulkuniemi 2008; Voss & Hsuan, 2009; Bask et al. 2010; De Blok et al., 2014; Cabigiosu et al., 2015; Vähätalo & Kallio, 2015; Nätti et al., 2017), and this study proposes how value propositions can themselves be customised and how service modularity can be utilised in these efforts. The results of this study also suggest that configuring knowledge as well as internal and external resources can enable KIBS firms to match their value propositions with various needs of customers. Internal resources here include the expertise of the KIBS firm's personnel, documented knowledge, and IT tools, and external resources cover the actors in the network of a KIBS firm. In the existing literature, interfaces in services mean people, regulations, information or flow of information (Bask et al., 2010), planning rules, customer meetings and organisational arrangements (De Blok et al., 2014). The results of this study propose that

interfaces can also exist at the project management level and between the different modules, where these internal and external knowledge modules can be configured.

*Thirdly*, this study advances the literature of KIBS customer relationships by combining scientific discussions on customer knowledge construction and purchasing criteria with scientific discussion on KIBS customer relationships and thus increasing understanding of the KIBS customer relationships. The existing literature proposes that a firm primarily constructs knowledge about its customers by engaging in various communication practices with them (c.f. Foley & Fahy, 2004; Karantinou & Hogg, 2009; Ritala et al., 2013; Janssen et al., 2018; Growe, 2019). This study proposes additional ways in which such knowledge is constructed. The role of customer knowledge is especially emphasised in the development of customised value propositions. In case of a standard offering that is not customised based on customer needs, there is no need for profound knowledge transfer. Conversely, if the KIBS offering is customised to fit customer needs, intensive knowledge transfer and interaction needs to take place.

When looking at purchasing criteria in KIBS customer relationships, the existing literature on purchasing criteria mostly revolves around the purchases of tangible items (c.f. Sheth, 1996; Valk & Rozemeijer, 2009; Kidiyoor & Dhaigude, 2020). In contrast, this study explores which purchasing criteria are significant in KIBS customer relationships. The results of this study reveal eight essential purchasing criteria including value propositions, perception of service quality, perception of potential risks, the potential for customisation, quality customer relationships, individual preferences, geographic proximity, and the availability of information. Further, these purchasing criteria can be divided into service- and KIBS provider-related criteria, which allows more in-depth exploration. The results of this study also reveal that the relationship between the KIBS firm and the customer, as well as individual preferences, can directly influence purchasing decisions even though they are not generally part of a detailed evaluation process in a purchasing process. Moreover, the results of this study show that issues such as the phase and intimacy of the KIBS customer relationship influence which criteria are emphasised during the purchasing process.

### **6.3 Managerial implications**

Since the amount of KIBS continues to grow, KIBS firms need knowledge on how to communicate the value of their offerings to customers. Communication of value in KIBS customer relationships, on the other hand, requires an understanding of

value propositions, how they are developed to meet different customer needs, and how value components are combined in different types and at different levels of KIBS customer relationships. This study proposes practical insights into these issues. For managers, the results of this study include three main implications.

*Firstly*, for managers of KIBS firms, it is crucial to understand the phase of each customer relationship and how this can influence the composition of each value proposition and its communication. In B2B markets, the number of customers is limited. Therefore, building trust and maintaining customer relationships are essential. The role of individual experts is particularly notable in the evolution of KIBS customer relationships, influencing the development of value propositions. It is also vital to improve the management system to support and encourage personnel to share their customer knowledge within the KIBS firm since it helps to deliver the customers the offering they desire, which makes the customer ultimately more satisfied. Thus, seamless collaboration within a company is essential where everyone is working towards a common goal, namely satisfying and taking care of the customers. Transferring customer knowledge is also critical since customer knowledge is usually very much tied to individual experts. If they decide to leave the firm, the customers might follow these experts. In line with this, the KIBS firm cannot underestimate the role of attracting good personnel with high customer orientation. This notion emphasises the significant role of key account managers or key account management teams taking care of the customer relationships in KIBS. These points should be acknowledged on a managerial level in terms of emphasising the development and maintenance of customer relationships since quality customer relationships are not only a significant purchasing criterion in KIBS, but they are difficult to replace, thus building the basis for customer knowledge construction, service modularity implementation, and value proposition development enabling effective communication of value in KIBS customer relationships.

*Secondly*, a central aspect of the value creation in KIBS relates to a firm's ability to formulate value propositions according to each customer's needs, and this requires a clear understanding of its knowledge and resources and how to configure them to customise both its services and value propositions. An important implication for managers is the need to develop value propositions from value components, including four dimensions; economic, functional, emotional and symbolic. Managers should also understand how each value component of value propositions ensures providing a coherent message for customers. Essentially, the communication of a distinctive value proposition revolves around a good offering

that creates value for the customer. If a KIBS firm succeeds in implementation of its value propositions, it often leads to a constant flow of projects and deepens the customer relationship to an established level.

It should be noted that customers do not necessarily require immediate short-term effects concerning the implementation of value propositions. Instead, they desire positive changes in the longer term, with the form of successful projects and effortless collaboration and a service customised to their needs. In B2B sales negotiations, a persuasive value proposition and its successful argumentation to the customer are of great importance. It is a matter of how well the KIBS firm can crystallise why the customer should work with them and what value the customer gains compared to working with another firm. In sales negotiations, the challenge is to build trust with the customer, which enables customers to open more of their needs, making the knowledge flow and thus customer knowledge construction much easier building the basis for creating a persuasive value proposition.

*Thirdly*, for managers in KIBS firms, acknowledging the importance of understanding the customer's purchasing criteria enable more informed decisions concerning the communication of value. When looking for opportunities to improve both the KIBS firm and its services, managers might also find it useful to know that purchasing decisions are influenced both by the service provider and the services and which purchasing criteria fall into which category. Furthermore, it is good to be aware that customers may not be experts in the services they are purchasing, which underlines the importance of value propositions, to stand out from competing alternatives. It is also useful for KIBS firms to acknowledge that customers react differently to value propositions, depending on, e.g. personal history, past experiences and current state of mind. Even in B2B markets, customers do not always end up with the cheapest offer. However, buying centre teams often think of a larger entity concerning the KIBS firm's reliability, references, the customer's previous experiences and the value proposition.

Table 8 summarises the theoretical contributions and managerial implications of this study.



**Table 8. Theoretical contributions and managerial implications of this study.**

Original publication	Theoretical contributions	Managerial implications
I Heikka, E-L. (2020). Constructing customer knowledge in knowledge-intensive customer relationships. <i>Knowledge and Process Management</i> , 27(4), 251–261.	Theoretical contribution to KIBS customer relationships by defining the characteristics of KIBS customer relationships and by exploring customer knowledge construction by revealing various communication practices as well as proposing additional ways to construct customer knowledge. The results also showed that customer knowledge is critical in the development of customised value propositions.	The results help managers in their efforts to build a source of competitive advantage by providing practical ways to construct customer knowledge in KIBS customer relationships.
II Heikka, E. L., & Mustak, M. (2017). Purchasing of knowledge-intensive business services: a case study of relevant factors. <i>International Journal of Procurement Management</i> , 10(1), 21–37.	Theoretical contribution to KIBS customer relationships by revealing eight significant purchasing criteria in KIBS customer relationships and dividing them into service- and service provider-related criteria. Moreover, the results show that issues such as the phase and intimacy of the KIBS customer relationship influence which criteria are emphasised during the purchasing process.	For managers, it useful to know purchasing criteria in KIBS customer relationships and that purchasing decisions are influenced both by the service provider and the services and which purchase criteria fall into which category.
III Heikka, E. L., & Nätti, S. (2018). Evolving value propositions in knowledge-intensive business services. <i>Journal of Business &amp; Industrial Marketing</i> , 33(8), 1153–1164.	Theoretical contribution to KIBS customer relationships by providing a better understanding of the co-creative development of value propositions in KIBS customer relationships. More precisely, this study challenges the idea that value propositions are co-created always and at every phase of the KIBS customer relationship; rather, a more developed relationship is needed for the co-creation of value propositions. The results also distinguish value components in new and established KIBS customer relationships at relationship and project levels.	The results highlight that understanding the phase of the customer relationship and how it influences the composition of value propositions, likewise their communication, is crucial in KIBS customer relationships.

Original publication	Theoretical contributions	Managerial implications
IV Heikka, E. L., Frandsen, T., & Hsuan, J. (2018). Matching value propositions with varied customer needs: the role of service modularity. <i>Knowledge and Process Management</i> , 25(1), 64–73.	Theoretical contribution to KIBS customer relationships by applying the concept of service modularity to KIBS customer relationships and by combining service modularity with a value proposition in these relationships, and by proposing how service modularity can be utilised in customising value propositions by configuring knowledge as well as internal and external resources to match value propositions with customer needs. The results also identified that in co-creation of value propositions, the role of a KIBS firm is often more of a value facilitator, especially if the relationship is less developed.	The results generate context-specific knowledge on the process of combining knowledge and resources in matching value propositions with various needs of customers in KIBS.

## 6.4 Evaluation of the study

Research should be rigorous, and validity and reliability are pertinent concepts for attaining rigour in qualitative studies (Morse et al., 2008). The validity and reliability of a qualitative case study can be evaluated using four dimensions: internal validity, external validity, constructive validity, and reliability (Voss et al., 2002; Yin 2009: 41; Lindgreen et al., 2020). Generalisability is also a relevant concept in the evaluation of research, and therefore generalisability of this study is assessed at the end of this section.

*Internal validity* means the degree to which research establishes causal relationships (Slack & Draugalis Jr, 2001; Voss et al., 2002). The internal validity of this study was improved by utilising the relevant data and assessing the influence of subjectivity (Slack & Draugalis Jr, 2001). In this study, internal validity was also attained through a large qualitative dataset, which ensured that the connections between the utilised scientific perspectives could be shown in addition to how and why these connections are built (Voss et al., 2002) in KIBS customer relationships. The internal validity was also strengthened through the careful selection of informants, which ensured gaining the most relevant information about the phenomenon. Also, the utilisation of previous research drawing on different scientific perspectives on the phenomenon under study improved the internal validity of this study.

In addition, triangulation can be used to enhance the internal validity in qualitative studies (Bonoma, 1985; Perry, 1998; Johnston et al., 1999; Meijer et al.,

2002) on a complex topic (Meijer et al., 2002). The interviews conducted for this study were audiotaped and transcribed to enable subsequent note-checking as a form of triangulation. Also, the chain of evidence was made as visible as possible by providing original quotations from the empirical data (Perry, 1998) and by employing cross-case analysis (Lindgreen et al., 2020), which helped to increase the study's internal validity further and rendered the conclusions as transparent as possible (Perry, 1998).

*External validity* assesses the transferability of the results (Slack & Draugalis Jr, 2001; Voss et al., 2002). The external validity of this study was confirmed by providing a detailed description of the case firms, their customer firms, the characteristics of KIBS customer relationships and KIBS as an industry. The external validity of this study has also been improved by explaining and describing the implementation of this study and the related phases as accurately as possible. By proceeding as described above, the results of this study can also be better transferred beyond the immediate case study, thus indicating external validity.

*Construct validity* means the degree to which results can be interpreted as representing the intended concept, that is, whether the study uses concepts that reflect the phenomenon intended to be studied (O'Leary-Kelly & Vokurka, 1998). The construct validity of this study has been improved by utilising primary and secondary data as well as multiple data sources (Bonoma, 1985; Perry, 1998; Johnston et al., 1999; Yin, 2009: 41; Barratt et al., 2011), including a range of relevant documentation in addition to interviewing informants at both the case firms and their customer firms. The construct validity of this study was confirmed by describing the empirical data as accurately as possible. In this study, peer review feedback, as well as triangulation (Bonoma, 1985), were utilised to strengthen the construct validity. Also, the use of multiple case study setting helped ensure construct validity (Lindgreen et al., 2020).

*Reliability* refers to the consistency of the research procedures. The aim of reliability is to ensure that the results of the study are reproducible (Noble & Smith, 2015). The reliability of this study was attained by ensuring that it could be repeated by describing the research methods used as precisely as possible and, specifically, that the detailed replication of the research methods, data collection and case studies would achieve the same overall picture of the results. However, detailed individual results may vary, as human behaviour depends on the context and thus varies with time and place.

*Generalisability* means comparing the results with the results of previous research (Eriksson & Kovalainen, 2008: 294). The previous research on the

communication of value is scarce in the literature of KIBS customer relationships, especially from the perspectives included in this study. However, the results of this study are consistent with the literature on value propositions both in KIBS (Baumann et al., 2017) and other contexts (see, e.g. Rintamäki et al., 2007; Frow & Payne, 2011; Skålén et al., 2015; Bailetti et al., 2020; Ranta et al., 2020). In addition, the results of this study are consistent, e.g. with the literature on service modularity in the knowledge-intensive environment of health care (see, e.g. De Blok et al., 2014; Vähätalo & Kallio, 2015). Therefore, as the results of this study relate to the results of previous research conducted in other contexts or from other perspectives, it can be argued that the results of this study may be generalised to some extent also to some other kinds of KIBS than included in this study.

Table 9 on the next page summarises how validity, reliability and generalisability have been addressed in this study.

**Table 9. Evaluation of validity, reliability and generalisability in this study.**

Evaluation criteria	Explanation	Implementation in this study
Internal validity	Establishing causal relationships and logic of the research.	Cross-case analysis, previous research drawing on multiple scientific perspectives, relevant data with careful selection of informants, triangulation, original quotations from the empirical data and assessing the influence of subjectivity.
External validity	Demonstrating transferability of the results.	A detailed description of the case firms and their customer firms, the characteristics of KIBS customer relationships, KIBS as an industry as well as the implementation of the study and the related phases.

Evaluation criteria	Explanation	Implementation in this study
Construct validity	Ensuring that the study uses concepts that reflect the phenomenon intended to be studied.	Multiple case study setting, multiple primary and secondary data sources, triangulation, detailed case descriptions and interviewing informants both from the case firms and their customer firms, peer review feedback.
Reliability	Demonstrating that the results can be replicated if the described research procedures are followed.	A detailed description of the research methods, data collection and the cases.
Generalisability	Comparing generalisability of the results against the results of previous research.	Comparison of how the results relate to the results of previous research conducted in other contexts or from other perspectives.

To further evaluate the study, the criteria for trustworthiness have also been utilised to evaluate the trustworthiness of this study. Lincoln and Cuba (1985) originally developed the criteria for evaluating the trustworthiness of qualitative research. In their approach, qualitative research can be evaluated through specific criteria, including four different approaches: credibility, transferability, dependability, and confirmability (Lincoln & Cuba, 1985: 294.) According to Anney (2014), adopting the trustworthiness criteria improves the believability of qualitative research.

*Credibility* describes the extent to which the results represent the data in the study by describing whether the study was conducted using standard research procedures typically used in the indicated qualitative research (Connelly, 2016). In this study, credibility has been ensured by collecting rich empirical data with the careful selection of informants during two primary interview rounds. Credibility has also been confirmed through the utilisation of an extensive amount of secondary data, the involvement of co-authors in the research papers, and the use of several scientific perspectives.

*Transferability* refers to whether the results are transferable to other contexts (Graneheim & Lundman, 2004). Transferability has been facilitated in this study in explaining why the utilised scientific perspectives were chosen. In addition, transferability was established by describing in detail the context of KIBS, data

collection, the case firms and their customer firms, and by selecting the informants carefully. As the literature review reveals, KIBS are very heterogeneous since they include several kinds of services. With this regard, it may be questioned whether the results of this study can be transferable to other kinds of KIBS. However, according to the literature review, KIBS share several common characteristics. In that sense, it can be argued that the results of this study may be transferred to some extent also to some other kinds of KIBS than studied here.

*Dependability* means the degree to which the results are consistent (Graneheim & Lundman, 2004). The dependability of this study has been enhanced by providing an accurate description of the abductive research process used in this study, which enables the study to be as traceable as possible. In addition, discussions with the co-authors of the research papers helped ensure dependability. There was also consistency in the descriptions of the project events among the informants.

*Confirmability* refers to the extent to which the interpretations of the results reflect the data (Anney, 2014). This research occurred over several years, during which, KIBS, the case firms, and their customer firms have evolved significantly. It would, therefore, be incredibly difficult to repeat the entire process followed in this study. However, the research process is described in detail, and careful analysis of the empirical data, as well as the extensive use of the original quotations improve the authenticity of this study and the possibility of replicating it. The quotations indicate the rich empirical data across the multiple cases selected for this study. Moreover, the involvement of co-authors in the research papers of this study, as well as the peer review cycles and triangulation, have helped ensure confirmability of this study.

Table 10 summarises how trustworthiness has been confirmed in this study.

**Table 10. Evaluation of trustworthiness in this study.**

Evaluation criteria	Explanation	Implementation in this study
Credibility	The extent to which the results represent the data of the study.	Rich empirical data, conducting two primary interview rounds, careful selection of informants, an extensive amount of secondary data, triangulation and use of several scientific perspectives.

Evaluation criteria	Explanation	Implementation in this study
Transferability	The extent to which the results are transferable to other contexts.	Explaining why the utilised scientific perspectives have been chosen, a detailed description of the KIBS context, data collection, the case firms and their customer firms, and selecting the informants carefully.
Dependability	The extent to which the results are consistent.	A detailed description of the research process, consistency in the descriptions of the project events among the informants and triangulation.
Confirmability	The extent to which the interpretations of the results are derived from the data.	A detailed description of the research process, careful analysis of the empirical data, triangulation and use of original quotations.

## 6.5 Limitations

This study has some limitations, just like any other scientific research. In this section, the limitations of this study are addressed.

This study was conducted as a qualitative case study research, which inherently has some limitations concerning generalisability and representativeness (Johnston et al., 1999). Qualitative research data is often collected in interactive situations, such as face-to-face interviews (Gummesson, 2005). However, qualitative methods, including case studies, revolve around the researcher's interpretation of events, information, and reality, which, in the end, help construct the overall interpreted 'meaning' of the study (Bonoma, 1985) and might, therefore, to some extent, lack objectivity and methodological rigour (Johnston et al., 1999). This was mitigated in this study by carefully describing the methodological choices, utilising peer review feedback and triangulation as well as evaluating the validity, reliability, generalisability and trustworthiness of the study in detail.

In qualitative research, analysis and interpretation rely, to some extent, on the conscious or subconscious intuitions of the researcher. Qualitative research is also affected by the researcher's tacit knowledge, which is difficult to observe, evaluate

(Gummesson, 2005), or make visible. As a result of these factors, the interpretations and choices made throughout this study have inevitably been influenced by the researcher's subjective understanding of what to explore and how to explore it. However, in this study, triangulation and the involvement of other researchers in the research papers mitigated this effect.

Case study research has also been criticised for taking a significant amount of time and effort (Johnston et al., 1999). However, the goal of data collection in case studies is acquiring a depth of knowledge with contextual richness. Cases reflect and are sensitive to their context as well as to the temporal dimension in which events unfold (Bonoma, 1985). Thus, these general goals of case study research also supported the aim of this study, which was made possible by the content-rich multiple case study method.

This study examined the research phenomenon in KIBS, which enabled a comprehensive understanding through rich empirical evidence. Of course, it should be noted that other contextual settings could bring about different or complementary views on the research phenomenon concerning the communication of value in KIBS customer relationships since contextual differences may influence the results. Also, the results of this study are limited to two KIBS firms and their seven customer firms. The generalisability and representativeness of this study might also be limited by the fact that the empirical data was only collected in Finland. This makes it difficult to generalise the results to other geographical settings. The case firms were also narrowed to only include firms operating in the northern part of Finland. Therefore, as such, the results of this study cannot illustrate the entire picture of the whole KIBS sector in Finland. Finally, the research conducted in this study concentrated on a single stakeholder setting, which might further limit its contributions and implications concerning only dyadic KIBS customer relationships.

## **6.6 Suggestions for future research**

The share of KIBS will continue to grow, as will its demand. Therefore, due to its importance, research concerning KIBS is highly needed also in the future. There are several potential research avenues concerning the phenomenon of this study. Since the approach of this study, the communication of value, is novel and has not been discussed largely in the literature of KIBS customer relationships from the perspectives studied here, future research could also utilise quantitative methods.



In addition, future research could explore the phenomenon in different kinds of KIBS than this study.

This study viewed value propositions in a single stakeholder setting, namely in dyadic KIBS customer relationships. Future research could study value proposition development by taking a multiple stakeholder approach to determine how the communication of value occurs through the interaction with various stakeholders. In order to achieve richer insights into the crucial role of customer knowledge in the communication of value, it would be interesting to examine further how customer knowledge could be transferred more effectively within the KIBS firm. Such a study could utilise a multilevel approach by taking into account the decision-makers and management systems within the firm.

Further empirical studies might also more carefully investigate the role of buying centres, as this would enable understanding of how the different purchasing criteria revealed in this study, such as value propositions, are valued and emphasised in the various roles of the buying centre in the final purchasing decision. Another exciting research idea relates to the question of whether the significance of the value proposition regarding purchasing decisions varies between different types of KIBS firms.

Future research could also include the perspective of key account managers or key account management teams, which would allow for a detailed examination of the role of trust-building and taking care of KIBS customer relationships. Moreover, future research could thoroughly explore how trust-building and taking care of KIBS customer relationships influence the outcome of complex and high-risk projects. It could also specifically investigate the implications these factors have on the quality of the service provided and its related value propositions.

The communication of value could also be explored in other research areas concerning KIBS, such as innovations, which forms its own large scientific discussion within KIBS. It would also be interesting to investigate whether the communication of value differs somehow in the area of innovations and which issues are specifically emphasised there. Moreover, since KIBS are growing and evolving rapidly, continuous research is needed to prepare for the changing conditions in the whole KIBS sector.



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## Original publications

- I Heikka, E-L. (2020). Constructing customer knowledge in knowledge-intensive customer relationships. *Knowledge and Process Management*, 27(4), 251-261. <https://doi.org/10.1002/kpm.1650>
- II Heikka, E. L., & Mustak, M. (2017). Purchasing of knowledge-intensive business services: a case study of relevant factors. *International Journal of Procurement Management*, 10(1), 21-37. <https://doi.org/10.1504/IJPM.2017.080909>
- III Heikka, E. L., & Nätti, S. (2018). Evolving value propositions in knowledge-intensive business services. *Journal of Business & Industrial Marketing*, 33(8), 1153-1164. <https://doi.org/10.1108/JBIM-12-2017-0306>
- IV Heikka, E. L., Frandsen, T., & Hsuan, J. (2018). Matching value propositions with varied customer needs: the role of service modularity. *Knowledge and Process Management*, 25(1), 64-73. <https://doi.org/10.1002/kpm.1556>

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