Understanding value co-creation between service providers and customers in B-to-B context: a micro-level case study

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Abstract

Value co-creation has become increasingly important for (service providing) firms that want to increase their competitive advantage. Firms can succeed in value co-creation by integrating resources during direct interactions with customers, but this is not as easy as it might sound. Research towards value co-creation has increased but lacks to provide an understanding of how this process of resource integration impacts value co-creation. This study fills this gap in service marketing- and practices-based literature by conducting micro-level research by means of a single case study. It presents a framework that shows that the alignment between resource integrating (RI) practices and the customers' value creating process determines whether value co-creation occurs. It further identifies the existence of drivers that are related to RI practices. Most importantly, this study suggests, based on empirical evidence, that the service providers' performance within these drivers directly impacts the alignment between the RI practice and the customers' value creating process, and thereby indirectly impacts the co-creation of value. These findings contribute to our understanding of value co-creation in B-to-B context.

Keywords

1. Introduction

Traditionally the separation of roles between firms and customers was very clear. The firm produced and sold a product or service, and the customer bought and used it. However, nowadays we see that many firms are trying to blur this border. They do this, for example, by inviting customers to help designing their product, and/or interactively support them when they are using it. The reason for these activities is that customers determine what the value of a product or service is, and not firms. By interacting closely with its customers, firms try to influence the value that is experienced by the customer to strengthen their position.

This trend can also be observed in service marketing research, which has been shifted from viewing firms as value producers towards the idea that value is created by customers (Grönroos, 2008; Vargo & Lusch, 2004). This means that firms can only create resources with *potential* value and provide these to its customers. Once the customer has integrated these resources within their practices and experiences the value of those resources, *real* value has been created. Real value is commonly defined as *value-in-use*, which was introduced as a value-concept by Vargo and Lusch (2004). Value-in-use means that 'value emerges *during the use* of resources' (Grönroos, 2017, p. 128). Following this logic, firms can only develop and provide value facilitating resources, such as products and services, with the purpose of supporting the customer to reach their goals in a way that creates value for them (Grönroos, 2017). Therefore, understanding customers' needs,

creating value promises and providing value propositions lies at the basis of creating organizational competitive advantage.

However, the fact that firms fundamentally obtain a value facilitating role does not mean that they are totally excluded from value creating processes (Grönroos, 2011). Especially service providers aim to support value creation in a more direct manner. In practice, we see that many firms accomplish this by engaging in value creating processes of its customers through close dyadic interactions (e.g., Rolls-Royce's TotalCare (Marcos-Cuevas, Nätti, Palo, & Baumann, 2016)). TotalCare is a service offering by Rolls-Royce (as a provider of power systems for aircrafts) in collaboration with its customers (e.g., airlines). Close collaboration and resource integration between both actors resulted into a relationship with many beneficial outcomes for both Rolls-Royce and customers, such as decreased maintenance costs and increased cash-flow predictability. It is a good example of a firm that succeeds in engaging within the value creating processes of its customers, which is known as value co-creation. This strategy enables service providers to obtain, next to the value facilitating role, a value co-creating role and thereby increases its competitive strength (Grönroos & Voima, 2013).

Nevertheless, value co-creation is not something that always and everywhere takes place. Value co-creation is only possible if the customer allows the firm to join their value creating processes and is willing to act as a value co-creator too (Ballantyne & Varey, 2006; Grönroos, 2008; Payne, Storbacka, & Frow, 2008). The engagement of the service provider within its customers' value creating processes is accomplished through direct interactions (Grönroos, 2011). These direct interactions are established when '*two (or more) actors act together in one process, in which their doings and sayings influence each other's actions and perceptions*' (Grönroos & Gummerus, 2014). During this interactive process, every actor can actively influence the value that emerges for the other actor, and therefore these interactions introduce new opportunities to create value

within the value chain. However, this process of value co-creation is not as simple as it might sound, and managing interactions with customers can be problematic (Heinonen & Strandvik, 2015).

Interactions do have a huge potential for value co-creation, but the outcome is not necessarily positive. Only when the integration of resources within interactions is aligned with the customer's value creating process, value co-creation can be facilitated. When misalignment occurs within interactions, value co-destruction will emerge (Echeverri & Skålén, 2011; Järvi, Kähkönen, & Torvinen, 2018; Plé & Cáceres, 2010; Skålén, Pace, & Cova, 2015). Therefore, it is crucial that (marketing) managers are aware of the impact that the level of alignment of resource integration has on the value co-creating capabilities of their organization. However, just acknowledging the causal relationship between alignment of resource integration and the emergence of created value during interactions is not enough to understand how they can influence this process. Only a thorough understanding of this phenomenon will enable managers to anticipate to it, and thereby increase the firm's competitive strength. By empirically exploring how alignment of resource integration occurs within direct interactions between service providers and customers, we will expand the understanding of the micro foundations of value co-creation. By doing this, we can provide relevant insights on how value emerges or diminishes during direct interactions between service providers and customers. This can help managers to act in favor of an increased probability that value will be co-created.

1.2 Research gap
Research on value co-creation identified two concepts of interactions: direct and indirect interactions (Grönroos & Voima, 2013). Within direct interactions, there will be an interaction between the customer and an intelligent resource (e.g., a human being) of the firm. Within indirect interactions, the interaction will occur between the customer and a non-intelligent resource (e.g., a physical product or standardized system)

provided by the firm. In recent literature it is accepted that '*only direct interactions enable co-creation between the actors*' (Grönroos & Gummerus, 2014). This is the case because direct interactions are a collaborative process where both the firm and the customer can influence the creation of value. This is in contrast to indirect interactions, where the customer is the only actor that determines if value will be created (Grönroos & Gummerus, 2014; Grönroos & Voima, 2013). Nevertheless, simply establishing direct interactions between firms and customers is not enough for value co-creation. Based on the outcomes of several macro-level studies (Echeverri & Skalen, 2021; Echeverri & Skålén, 2011; Grönroos & Voima, 2013; Voima, Heinonen, Strandvik, Mickelsson, & Arantola-Hattab, 2011), it can be concluded that both the firm's understanding of the customer's value creating process, and the quality and level of alignment of resource integration within direct interactions will decide whether value co-creation or value co-destruction will emerge.

However, these studies are viewing these phenomena from a higher order view. This approach allows observations of large-scale patterns, but lacks the opportunity to analyze small-scale interactions and dynamics (between individuals). Therefore, these studies lack detailed information about *how* these direct interactions appear in practice (Grönroos, 2017). Since it is difficult to empirically observe value co-creation on a macro-level, it is more likely that focusing on micro foundations, such as resource integration during direct interactions, will lead to designable and manageable insights (Storbacka, Brodie, Böhmann, Maglio, & Nenonen, 2016). Analyzing the micro foundations of a macro-level concept such as value co-creation contributes to '*unpack collective concepts to understand how individual-level factors impact organizations, how the interaction of individuals leads to emergent, collective and organization-level outcomes and performance, and how relations between macro variables are mediated by micro actions and interactions*' (Felin, Foss, & Ployhart, 2015, p. 4). These micro foundations should be studied from a micro-level perspective

in order to reveal underlying actions that increase or diminish value co-creation (Grönroos, 2017). Especially in B-to-B context, where the value creating process of the customer is likely to be more complex (Echeverri & Skålén, 2011; Payne, Storbacka, Frow, & Knox, 2009), there is little knowledge about how firms can successfully engage within these processes in order to co-create value. Therefore, micro-level research devoted towards resource integration within direct interactions (as a micro foundation of value co-creation) in B-to-B context will contribute to a better understanding of how service providers can successfully support value creation.

1.3 Purpose of the study
In this vein, we empirically explore how alignment and misalignment of resource integration within direct interactions occurs in B-to-B context. By taking this approach, we attempt to identify how alignment and misalignment of the integration of intelligent resources impacts the value co-creation of a service provider and its customer. Exploring and analyzing these micro foundations will help us to provide (marketing) managers of service providers with advice about how they can better anticipate on this. In order to do so, we formulated the following research questions:

How does alignment and misalignment of resource integration within direct interactions between service providers and customers occur in B-to-B context?

How can service providers better anticipate on this?

1.4 Theoretical positioning
Our study contributes to both service marketing- and practices-based value co-creation literature. Researchers within these streams have increasingly studied value co-creation and show some overlap with regards to resource integration within direct interactions. However, both approaches logically have a different view on the emergence of co-created value. Service marketing literature has focused mainly, from a

marketing perspective, on the different roles that actors obtain while they are integrating resources (Aarikka-Stenroos & Jaakkola, 2012; Grönroos, 2011, 2017; Grönroos & Gummerus, 2014). Practices-based theory elaborates on the practices that occur during direct interactions, and the impact that alignment and misalignment of these practices has on value co-creation (Echeverri & Skalen, 2021; Echeverri & Skålén, 2011; Skålén et al., 2015). Combining these perspectives allows us to explore the occurrence of alignment and misalignment of both resource integration and practices within direct interactions.

1.5 Potential contributions
With this study, we are contributing to a deeper understanding of the micro foundations of value co-creation. Empirical evidence allows us to get a detailed view of the impact of alignment and misalignment of resource integration within direct interactions on the emergence of value co-creation or value co-destruction. This will contribute to existing service marketing literature, since this is missing in current studies (Grönroos, 2017; Grönroos & Voima, 2013). Furthermore, by exploring how the alignment of resource integrating practice occurs, this study will contribute to practices-based theory by providing a better understanding of the factors that drive this process (Marcos-Cuevas et al., 2016; Schau, Muñiz Jr, & Arnould, 2009; Skålén et al., 2015). Lastly, the presented framework will help (marketing) managers in B-to-B markets to analyze the performance of their firm during resource integrating practices within direct interactions with their customers.

1.6 Theoretical relevance
It is evident that value co-creation is key for firms that are seeking to increase the level of satisfaction and loyalty of its customers. From previous studies, we know that firms can realize value co-creation by directly interacting with its customers' value creating process. However, an (empirically grounded) understanding of *how* firms should act within these direct interactions, and what determines if value will be co-created or co-destructed, is currently missing. This study

contributes to value co-creation literature by providing a better understanding of the micro foundations of value co-creation. This is accomplished by presenting empirical evidence of the impact of (mis)aligned resource integrating practices on value co-creation within B-to-B context. By focusing on the micro foundations of value co-creation within this context, we contribute to a better understanding of how service providers can successfully co-create value with other firms.

1.7 Practical relevance
Applying the insights of this study to their own organization helps marketing managers to better evaluate the relationships with their customers. It allows them to identify if, and to what extent, their firm succeeds in creating value together with other firms. The framework presented in this study can be used by managers to examine their firm-specific practices that occur during direct interactions with customers. Furthermore, the findings of this study will contribute to better understand how their performance within drivers of these practices influences the emergence of co-created value. This will support top-level managers to develop a strategy that contributes to co-create more value with customers. This will strengthen their competitive advantage.

1.8 Outline
The next section introduces the theoretical background of the key concepts and the methodology of this study, whereafter the findings of the case study will be presented and interpreted. The last section will consist of a discussion and conclusion, in which the main research questions will be answered and limitations of the study and opportunities for future research will be identified.

2. Theoretical Background
This section will present relevant theory that is used in this research. Firstly, value will be seen through the value-in-use perspective, as elaborated on in service-dominant logic and service logic. Secondly, the roles and activities that occur during value co-creation will be

explained by the Value Creation Spheres Model (Grönroos & Voima, 2013) and Joint Problem Solving Process Model (Aarikka-Stenroos & Jaakkola, 2012). Furthermore, relevant literature on resource integration, practices-based theory, and alignment and misalignment of practices will be discussed.

2.1 Value creation
2.1.1 Conceptualizations of value
In the traditional value perspective, value was created by firms and embedded in goods and services. When firms sold their products to their customers and received payment, value emerged as value-in-exchange. However, the concept of value as an outcome of manufacturing processes by the firm was challenged by several authors in marketing research during the 1990s and 2000s (Grönroos, 2006, 2008; Holbrook, 1994; Normann, 2001; Normann & Ramirez, 1993; Vargo & Lusch, 2004, 2008; Wikström, 1996). These researchers centered value around the customer that uses goods or services (Grönroos, 2008; Prahalad & Ramaswamy, 2004; Vargo & Lusch, 2004). Value was no longer embedded in goods and services, but *'centered in the experiences of consumers'* (Prahalad & Ramaswamy, 2004).

Value will be created when a consumer or customer experiences feelings around the use of a product or service. This can emerge before, during or after the actual purchase and usage of a product (Heinonen et al., 2010). A customer who just ordered a new car and feels happy and proud (experienced value) because he knows that he will drive this car soon, is an example of value that is created before the actual use of a product. Explaining value as an outcome of the experience around the use of a good or service by the customer is known as value-in-use, and can be considered the dominant value concept in service marketing literature (Grönroos, 2008, 2017).

2.1.2 Service-dominant logic and Service logic
Value-in-use is prominently present in both the two main research streams of the service marketing perspective: service-dominant logic (SDL) (Vargo & Lusch, 2004, 2008), and service logic (SL) (Grönroos, 2011; Grönroos & Voima, 2013). However, there is a significant difference in the use of the concept of value-in-use. According to service logic, value-in-use is the only definition of value. This is in contrast to service-dominant logic, where different meanings of value are used in different contexts (Grönroos & Gummerus, 2014). Despite this difference, both SDL and SL have the same purpose: emphasizing the importance of service and the interface between service providers and customers (Grönroos & Gummerus, 2014).

Nevertheless, there are two other important differences between both logics. Firstly, SDL takes a more general view on service and value creation, which is helpful for discussing the service perspective on an aggregate level. However, this makes it less suitable for micro-level research. SL takes more of an analytical approach, with value co-creation concepts that can be used to take a service perspective on a managerial level (Grönroos & Gummerus, 2014). Secondly, the view of SDL on service, which placed this concept as the central foundation of business, is challenged by SL. The latter logic identifies value creation as the central foundation of business, with service as a facilitator. Concepts such as value co-creation and interactions are the core of SL, while these constructs are not analyzed in detail within SDL. Therefore, service logic is a more appropriate perspective for conducting research devoted to micro foundations of value (co-)creation, and subsequently provide relevant insights on a managerial level.

2.2 Value co-creation
When taking a closer look at theoretical approaches to value creation and value co-creation, another contradiction between SDL and SL will be revealed. Service-dominant logic states that value is always co-created (Vargo & Lusch, 2004). It links value co-creation to both direct and indirect interactions between firms and customers (Makkonen & Olkkonen, 2017). This view is criticized by Grönroos and Voima (2013, p. 137), who claim that *'by viewing value*

creation as an all-encompassing process, co-creation becomes a metaphor – everything is co-creation, everybody co-creates – that does not allow for further analytical developments'. This opinion is validated in service logic, where value co-creation is defined as value creation that occurs in direct firm-customer interaction only (Grönroos, 2011; Grönroos & Gummerus, 2014). Thus, if there is no direct interaction between both actors, value co-creation cannot exist (Grönroos & Helle, 2010). According to this perspective, value co-creation *'is a joint process that requires interaction and the presence of both the customer and the supplier'* (Saarijärvi, Puustinen, Yrjölä, & Mäenpää, 2017, p. 11). In 2011, the term *Interactive Value Formation (IVF)* was introduced (Echeverri & Skålén, 2011). IVF was invented to be able to describe the co-creation or co-destruction of value without linking it to either positive or negative outcomes. Both value co-creation and IVF are commonly used in service marketing literature.

2.2.1 Actors, roles, and activities in value co-creation processes

Defining value co-creation (or IVF) as a joint process makes it possible to analyze the different roles that actors obtain, and the corresponding activities that occur, during the process. Grönroos and Voima (2013) contributed to the theoretical development of the service logic view on value creation by conducting the Value Creation Spheres Model. This model differentiates three different value spheres according to who creates or co-creates value: the *provider sphere, joint sphere,* and *customer sphere*. In the provider sphere, firms produce resources that customers can use. By providing these resources, firms create potential value-in-use and act as a value facilitator (Grönroos, 2008, 2011). In the customer sphere, the customer is creating value-in-use by experiencing value around the use of the resources provided. In the *joint sphere,* the roles of the firm and the customer will change, and both actors can become co-creators of value-in-use. In both the customer- and joint sphere, the customer is in charge of the creation of value.

In the customer sphere, the value creating process is completely closed to the firm. But in the joint sphere, firms can *'influence the customer's value creating process and serve as a co-creator'* (Grönroos & Voima, 2013). This may happen if the service provider's resources/processes interact with the customer's resources/processes, and vice versa. When this process of integrating resources happens through direct interactions, the firm can move from being only a value facilitator towards being a value co-creator too (Grönroos, 2011).

The Value Creation Spheres Model can be helpful when conducting a case study like we did in this research. Firstly, it facilitates framing the roles and activities of both the firm and customer in each sphere during the process of value creation. Secondly, it can be used to provide insights into where, and when, the firm can get access to the value creating processes of the customer. When a firm succeeds in participating in these value creating processes by means of direct interactions, a platform for value co-creation occurs (Grönroos & Voima, 2013).

The process of value co-creation was examined by Aarikka-Stenroos and Jaakkola (2012) too. The researchers contributed to our knowledge of the activities and roles within value co-creation by constructing an empirically grounded framework that presents value co-creation as a Joint Problem Solving Process. They adopted a dyadic view in the context of knowledge intensive business services. However, the authors believe that the process they depicted in their framework is applicable to other contexts too, by stating that the implications *'could exist for any industry with knowledge intensive, customized offerings involving unstructured decision and production processes'* (Aarikka-Stenroos & Jaakkola, 2012, p. 23). Five key collaborative activities during the process of value co-creation were identified: *diagnosing needs, designing and producing the solution, organizing the process and resources, managing value conflicts,* and *implementing the solution.* These activities will occur during direct interactions between firms and customers, and together determine whether value co-creation or

value co-destruction will emerge. The core within these activities is the integration of resources, which is a central concept in the service-dominant logic stream (Vargo & Lusch, 2004, 2008). During the process of collaboratively creating value-in-use, both the firm and customer will contribute resources. If the parties fail to integrate them correctly during the collaborative activities, the value-in-use that accrues will be less than optimal or even negative (Aarikka-Stenroos & Jaakkola, 2012).

Based on the Value Creation Spheres Model (Grönroos & Voima, 2013) and the Joint Problem Solving framework (Aarikka-Stenroos & Jaakkola, 2012), we can identify the actors, roles and key activities within a process of value co-creation. Furthermore, we learned that the co-creation of value-in-use can only occur if there is a direct interaction between the firm and the customer.

2.3 Alignment vs. Misalignment in Resource Integration

Nevertheless, direct interactions do not necessarily result into value co-creation (Echeverri & Skålén, 2011). Several researchers devoted their studies towards the possibility that direct interactions have a negative outcome and lead to value co-destruction (Echeverri & Skalen, 2021; Echeverri & Skålén, 2011; Järvi et al., 2018; Plé & Cáceres, 2010; Prior & Marcos-Cuevas, 2016; Vafeas, Hughes, & Hilton, 2016). A recent literature review on value co-destruction (Echeverri & Skalen, 2021) showed that most articles on this topic are drawn on articles of Plé and Cáceres (2010) and Echeverri and Skålén (2011). The first article emphasizes the role of resource integration, while the latter takes an approach based on practice theory with a focus on congruency/incongruency or alignment/misalignment.

2.3.1 Resource Integration

Plé and Cáceres (2010) claim that value co-creation stems from resource integration. Resource integration is a concept that is central in service marketing literature, but it is viewed in different ways (Edvardsson, Kleinaltenkamp,

Tronvoll, McHugh, & Windahl, 2014). Our view on resource integration is built on researchers who took a service logic perspective, and argue that resource integration converts value propositions into value-in-use (Grönroos, 2011; Grönroos & Gummerus, 2014). According to service logic, successful resource integration in direct interactions leads to value co-creation. But this is not always the case. When firms and/or customers fail to integrate or apply the provided resources correctly, value co-destruction will occur, which results in a decline of at least one of the actors' well-being (Plé & Cáceres, 2010). This concept of failed resource integration is known as *resource misuse*. Another concept that is related to resource integration is *'resourceness'*, which is defined as *'the ability of potential resources to facilitate the accomplishment of something desirable is determined by the availability of other, complimentary and inhibiting potential resources, including the actors' ability to integrate and apply these resources'* (Koskela-Huotari & Vargo, 2016).

The existence of resource misuse and resourceness illustrates that there are many different approaches within resource integration research, which was observed by other researchers too (Bocconcelli et al., 2020; Makkonen & Olkkonen, 2017). Makkonen and Olkkonen (2017, p. 3) bundled the otherwise varying perspectives and conceptualizations by defining resource integration as '*the content of IVF'*. By viewing resource integration as a common core of value co-creation, it endorses the importance of resource integration without being tied to a particular perspective.

2.3.2 Similar studies adopting a Practice Theory perspective

Service marketing literature is not the only research stream where research on value co-creation is emerging. Next to other authors (e.g., Caridà, Edvardsson, & Colurcio, 2019; Echeverri & Salomonson, 2017; Skålén et al., 2015), Echeverri and Skålén (2011) adopted an approach based on practice theory to analyze value co-creation and value co-destruction as an

outcome of interactions. This study elaborates on previous marketing research that has drawn on practices-based theory too (Schau et al., 2009; Warde, 2005). According to Nicolini (2012), practice theory is a family of theoretical perspectives committed to expand the understanding of the frameworks of organized actions that people perform in order to execute concrete actions, like engaging in interactions (Reckwitz, 2002; Schatzki, 1996). Building on practice theory, *practices* are the skills which actors draw on to both act and interpret other actors' actions (Schatzki, 2006). More recently, it was argued that practices have a dual meaning, since *'they are frameworks for action as well as the very actions carried out when people enact these frameworks'* (Echeverri & Skalen, 2021). Several empirical studies found a set of practices while conducting case study research. Schau et al. (2009) revealed twelve practices that occurred within nine different brand communities. Echeverri and Skålen (2011) conducted a case study in the context of public transport, which resulted in the presentation of five common practices. More recently, Skålén et al. (2015) revealed a set of eight practices when analyzing a platform where interaction between Italian car manufacturer Alfa Romeo and their most devoted consumers takes place. The practices presented within these three studies are different, but all describe a particular moment or action during the direct interaction between a provider firm and their customers or consumers. In the next paragraph, we will discuss the impact of alignment and misalignment of these practices.

2.3.3 Alignment vs. Misalignment of practices

As depicted within the Joint Problem Solving Process framework, which was shortly described in paragraph 2.2.1, resource integration happens within practices (Aarikka-Stenroos & Jaakkola, 2012). This is in line with the practices-based work of Echeverri and Skålen (2011), as discussed before. They found, from studying the business-to-consumer relationship in public transport, that *informing, greeting, delivering, charging,* and *helping* are the practices that are

enacted within the interactions between both actors. When the interacting actors enact these practices congruently, value co-creation occurs. When the practices are enacted incongruently, value co-destruction occurs. Furthermore, the authors found a direct reciprocal relationship between value co-creation and value co-destruction. Sequential studies elaborated on these findings and found that aligned enactments of practices creates value and misaligned enactments of practices furthers the destruction of value (Skålén et al., 2015). Additionally, the authors suggested that the concept of *alignment/misalignment* is more widely used in marketing theory than *congruency/incongruency*. In both the resource integration approach and the practices-based theory approach, alignment or misalignment (of either resource integration, or practices) within a direct interaction determines whether value co-creation or value co-destruction will emerge. These approaches were integrated in a synthesizing framework that suggests that IVF is a function of the alignment and misalignment *within* practices and *in-between* practices (Echeverri & Skalen, 2021).

2.4. Theoretical Framework

The theory of value creation spheres, co-creation activities, resource integration, and alignment/misalignment of practices was combined to construct a theoretical framework (Figure 1). It serves as a theoretical foundation for explaining how alignment and misalignment of resource integration occurs during direct interactions between service providers and customers. This will be discussed by elaborating on the three value spheres that are depicted within the framework.

Provider sphere

The service provider acts alone in the provider sphere, which is closed to the customer. During the production process, the service provider uses available resources to create potential value-in-use. The potential value is captured in created resources (often products, services or a combination), that can be exchanged with resources of the customer (often money). After

this exchange, the customer can evolve the potential value into real value by integrating the acquired resources into their practices and experience value from it. The provider is limited to the role of value facilitator and cannot directly influence the value creating process of the customer from this sphere.

Joint sphere

When the service provider and customer interact with each other through direct interactions, both actors move into the joint sphere. Establishing direct interactions in the joint sphere is the only opportunity for service providers to directly influence, or even join, the value creating process of the customer. By directly interacting, service providers' and customers' processes can merge into one collaborative process, which enables the opportunity to create value together. In order to do this, both actors need to make (a part of) their resources available to the other party. When the service provider or customer integrates these resources with their own resources, resource integration occurs. This process of resource integration happens through five practices:

diagnosing, designing & producing, organizing, managing, and *implementing.* These collaborative resource integrating practices can result into either value co-creation or value co-destruction. Whether the outcome will be positive or negative depends on the level of alignment with the value creating process of the customer. If there is alignment between the resource integrating practices and the value creating process, value co-creation will emerge. Misalignment between the practices in the joint sphere and the value creating process in the customer sphere will cause value co-destruction.

Customer sphere

The customer creates value in the customer sphere by experiencing value around the use of provided resources during value creating processes. These value creating processes are everyday practices where the resources provided by the service provider can be implemented. Service providers cannot influence how value will be created, since there are no direct interactions between both actors in this sphere.
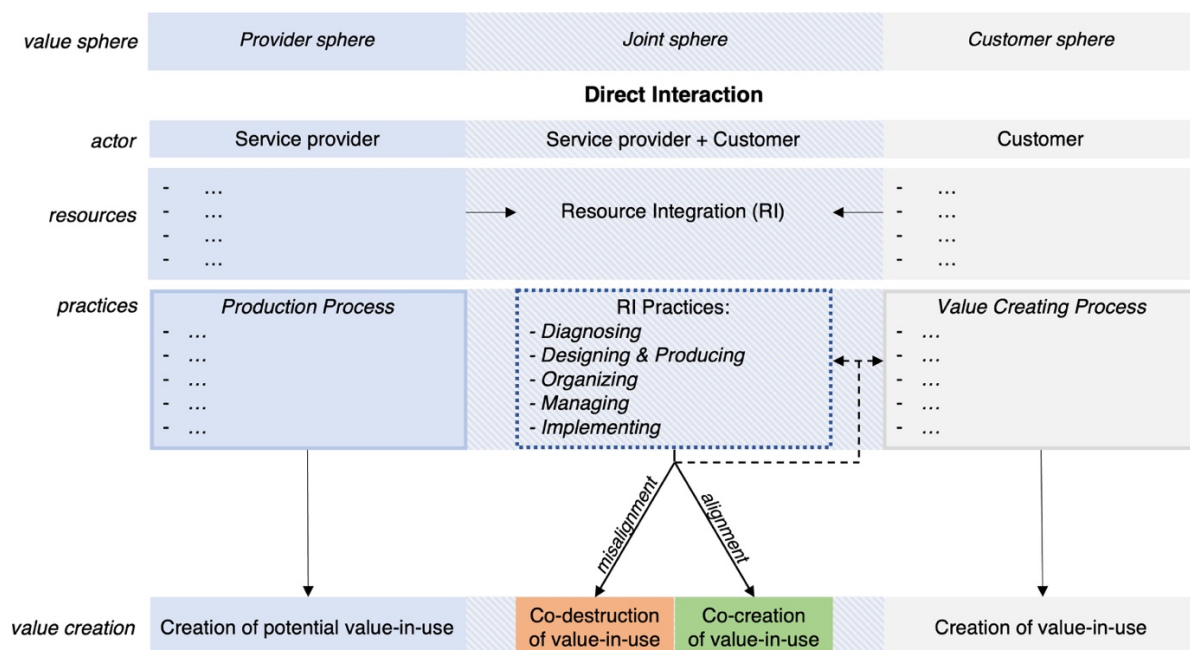

Figure 1 - Theoretical Framework

3. Methodology

The objective of this study is to better understand how the alignment of resource integration during direct interactions between service providers and customers impacts the co-creation of value. In order to achieve our objective, an explorative qualitative approach was chosen.

Firstly, in line with several other studies in the field, we will identify resource integrating practices that occur during direct interactions by analyzing the empirical data (Echeverri & Skålén, 2011; Schau et al., 2009). These practices consist of (1) *procedures* – explicit rules, principles, precepts, and instructions, called *'discursive knowledge'*; (2) *understandings* – knowledge of what to say and do, skills and projects, or know-how; and (3) *engagements* - ends and purposes that are emotionally charged as much as people are committed to them (Duguid, 2005; Schau et al., 2009; Warde, 2005). Drawing on these studies, practices are seen as the frameworks for action. However, this study also agrees with a more recent view on practices, which adds that the practices become the actions itself when people enact the frameworks (Echeverri & Skalen, 2021).

After identifying the resource integrating practices, we will analyze how the level of alignment of these practices is related to value co-creation. This allows us to gain a more thorough understanding, from a micro perspective, on the impact of alignment and misalignment of resource integrating practices on value co-creation in B-to-B context. Furthermore, we will analyze the collected data thoroughly to explore how the alignment of resource integrating practices occurs.

Given the explorative nature of this study, we adopted the case study method. This is the most appropriate method when researchers aim to gain a deeper insight of a phenomenon, such as value co-creation (Yin, 2009). Especially in business relationship and industrial marketing research, in which value co-creation is a central topic too, the case study method is appropriate and widely used to better understand complex phenomena (Granot, Brashear, & Motta, 2012).

This research followed an abductive process. This allows researchers to move back and forth between theoretical concepts and field observations, seeking to simultaneously develop the understanding of both theory and empirical data (Dubois & Gadde, 2002). Our approach was abductive in the sense that we modified conceptualizations and the theoretical framework during the research process as a result of empirical findings from the interviews. Studies of several authors that conducted qualitative research devoted towards value co-creation have proven the benefits of an abductive approach in this field (Järvi et al., 2018; Vafeas et al., 2016).

3.1 Research Design

There are two case study designs: the multiple case study and the single case study. Multiple case studies have the benefit that it allows the researcher to analyze the data across different situations, whereas single case studies enable the researcher to have a deeper understanding of the exploring subject (Gustafsson, 2017). Given the objective of this study, we considered the single case study design to be more appropriate. This is endorsed by recent research on value co-creation in B-to-B systems, which identified that single case studies offer unique opportunities to gain a better understanding of the micro practices of value co-creation (Kohtamäki & Rajala, 2016; Marcos-Cuevas et al., 2016). Therefore, we selected the single case study design for this research. The context of the single case study is an access control vendor in the (physical) security industry, called TechCo.

3.2 Research Case

TechCo is a high-tech firm that creates high-quality, innovative hardware and software products. The firm has 10 offices (worldwide) and 800+ employees, structured into seven business units. One of these business units is TechCo Security Management, which operates in the international (physical) security market.

Within the field of security there is a multitude of solutions: access control, video management, intrusion detection, and many more. In contrast to some of their competitors,

TechCo does not develop a wide range of security solutions themselves. TechCo is only focused on developing and selling their access control system, called ACS. TechCo distributes ACS via an international certified network of System Integrators. These organizations are authorized to sell, install and maintain ACS to end-customers, and therefore are TechCo's customers. In most cases, these System Integrators sell ACS, together with other security systems from other vendors, as a totally integrated security package to end-customers.

The pace of technological development is increasing exponentially, which causes a new challenge for System Integrators. End-customers are demanding a solution consisting of the latest technologies of today. On the other hand, they are afraid of investing in a solution that locks them in with no options for switching to the newer technologies of tomorrow. To facilitate a satisfying answer to this challenge, TechCo designed ACS as an open platform, which can be integrated with any other security system. This design makes it possible for System Integrators to offer a solution consisting of a) TechCo's ACS, as the central access control platform, and b) integrated security systems of other vendors, like video management and/or intrusion detection. When an end-customer wants to add, upgrade or replace one of these integrated security systems in the future, this can be done by the System Integrator. ACS will still be the central access control platform, so there is no need to replace or upgrade the entire solution. This makes investing in such a solution future-proof for end-customers.

The value creating process of System Integrators consists largely of identifying the needs of end-customers, offering the best-fitting total security solution and implementing and integrating the needed security systems at the end-customer's location. By developing technically seamless integrations between ACS and security systems of other vendors, TechCo aims to support System Integrators during their everyday practices. These integrations are a possibility to create a platform for value co-creation, but mutual beneficial interactions are

needed to realize this. Since a couple of years, TechCo started to focus on co-creating value with System Integrators via direct interactions around these technical integrations.

However, both TechCo and System Integrators have acknowledged that during this period, both positive and negative outcomes have been caused by the interactions around integrations. This allows us to gather data from both successful and unsuccessful practices, which makes this case suitable to better understand why value co-creation sometimes succeeds and sometimes fails. This helps us to get a holistic view on the process of value co-creation. Furthermore, analyzing practices of value co-creation and value co-destruction within the same context offers a unique opportunity to better understand what the role of alignment and misalignment during direct interactions is. By analyzing the interactions between TechCo and System Integrators on a micro-level, we can identify the impact of these micro foundations of value co-creation. Besides, the context of this case allows us to generalize findings to other B-to-B context with knowledge intensive services. For these reasons, this case fits well with the goal of this study.

3.3 Sampling

We used the purposive sampling method to select the sample of this study. By using this method, we selected individuals that are well-informed with the phenomenon that we were examining (Etikan, Musa, & Alkassim, 2016). For this study, we determined that participants needed to have knowledge and experience about the direct interactions between TechCo and System Integrators with regards to integrations. We selected individuals from both TechCo and several System Integrators, which enabled us to collect data from both perspectives. From the service provider's perspective, we selected account managers and an integration manager with various years of experience working for TechCo. From the customer's perspective, we selected calculators, product managers, and account managers of five Dutch System Integrators. All the relationships between

TechCo and these System Integrators are long-lasting, but the level of intensity in sense of collaborating by means of integrations is believed to be different.

This research included also features of theoretical sampling, which means that participants are selected according to the expected richness of new insights contributing to the development of theory (Flick, 2002). By selecting participants with five different functions, we cover a wide range of actors within the dyadic relationship between the service provider and the customer. Furthermore, collecting data about direct interactions between TechCo and five different customers adds depth to this study by means of analyzing if observed evidence of value co-creation occurs in multiple relationships.

3.4 Data collection
The data within this study was collected via semi-structured interviews. This format allowed the interviewees to bring up topics or thoughts that were not specifically queried (Hesse-Biber & Leavy, 2010). The preconceived interview questions were related to topics like "resources and practices of TechCo", "resources and practices of System Integrator", "value creating process of the System Integrator", "interactions between TechCo and System Integrator", "integrations", "resource integration", and "co-creating value with integrations". The order of the questions was not fixed, and the structure was loose. We allowed interviewees a lot of freedom to raise new topics or express views and feelings, which contributed to exploit naturally occurring data . During the interviews, the researchers took small notes to keep track of relevant statements that were mentioned. Most of the interviews were held online using Microsoft Teams, because Covid-19 regulations did not allow visiting all the companies. However, three of the interviews could be arranged as Covid-19-proof face-to-face meetings, which helped to observe non-verbal communication. A total of eleven participants were interviewed. The interviews had a duration between 24 and 57 minutes and were all recorded and transcribed.

3.5 Data analysis
Thematic analysis was used to analyze the data collected during the interviews. It is a commonly used method to identify common themes, topics, and patterns that were mentioned during the data collection in qualitative research (Braun & Clarke, 2012). Our analysis followed the basic principles of grounded theory (Strauss & Corbin, 1998), as described in detail by Gioia, Corley, and Hamilton (2013). This approach allowed us to progress from detailed empirical data towards overarching themes with greater generality.

Firstly, we collected numerous first-order codes and themes from the collected data (also known as *open coding* from Strauss and Corbin (1998)). This provided an overview of all the qualitative data that was collected during the interviews. Secondly, we started looking for similarities and differences between the themes (*axial coding* from Strauss and Corbin (1998)). This resulted into a reduced number of themes, that were all categorized and labelled. This phase was followed by analyzing the themes on a deeper, theoretical level. In this second-order analysis, we were looking for emerging themes that '*might help us describe and explain the phenomena we were observing*' (Gioia et al., 2013, p. 20). We combined first-order themes that are strongly related to each other, which resulted in a set of second-order themes. Lastly, after theoretical saturation was achieved, we managed to process the second-order themes into four overarching themes (which are termed as *aggregate dimensions* by Gioia et al. (2013)).

The first-order, second-order and overarching themes are the basis for the data structure that was built to visualize our thematic analysis. Furthermore, it shows how we progressed from detailed, raw data towards overarching themes. This is key for demonstrating rigor in qualitative research (Gioia et al., 2013; Pratt, 2008; Tracy, 2010).

4. Results
4.1 Resource Integrating Practices
Through a thorough data analysis, this study identifies eleven second-order themes that

manifests within four overarching themes (see Figure 2). We labeled these four overarching themes as resource integrating practices (RI practices), since these themes depict the four categories of practices that were revealed by this study. These practices occur during direct interactions between the service provider and the customers. The following paragraphs elaborate on the four RI practices, supported by empirics, including the related themes: 1) *Diagnosing & Designing*, 2) *Producing & Implementing*, 3) *Promoting & Sharing*, and 4) *Supporting & Assisting*.
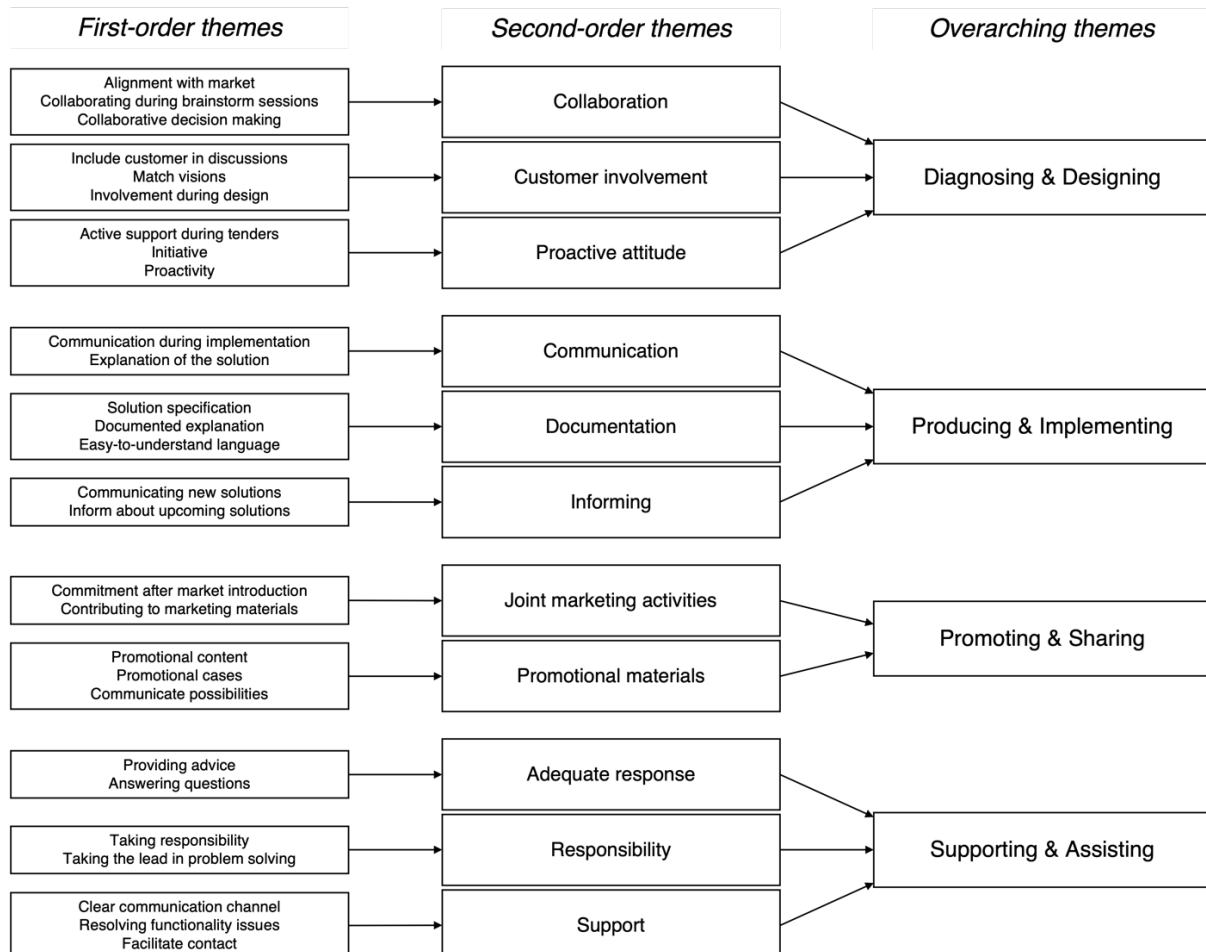

Figure 2 - Thematic Analysis

4.1.1 Diagnosing & Designing

Diagnosing the problem or opportunity and designing a solution that deals with it, is a crucial practice during direct interactions. Within this process, resources like industry knowledge, market knowledge, and technical knowledge are integrated in order to get a holistic and sharp view on the solution that needs to be created during the interaction between the service provider and the customer. Most of the customers mentioned during the interviews that they are not always sufficiently involved when the service provider is diagnosing the problem, and designing the solution. This can lead to a solution that does not properly fit with the needs and wishes of the market. The following citations describe these issues related to *customer involvement*:

> *"Sometimes we get involved after important decisions are already made. That's too late, because it happened more than once that we saw that crucial functionalities are missing." (Calculator, System Integrator)*

> *"We were dissatisfied about the last integration project. TechCo was primarily looking from its own point-of-view, and forgot that we as a customer have our needs and wishes too. There was no good fit." (Project manager, System Integrator)*

The presented citations above are evidence for the impact that the level of customer involvement during diagnosing and designing has on the perceived value of the customer. If the service provider fails to involve the customer sufficiently during this RI practice, an integration with less or even negative value is more likely to be created.

Furthermore, it became clear that a *proactive attitude* of the service provider influences the perception of the customer on the value of jointly creating integrations. During the interviews, some customers mentioned that they feel frustrated when the service provider acts passively when customers initiate a new integration:

> *"I expect my supplier to have a proactive attitude when I let them know that an interesting opportunity for an integration crossed my eyes." (Account manager, System Integrator)*

The proactive attitude that was mentioned by one of the customers is needed for another important theme too. Both parties agree that close *collaboration* in the first phase of an integration project has a massive impact on the likelihood that a successful integration will be co-created. However, collaboration can only take place when both the service provider and customer are showing a proactive attitude. The data revealed an interesting quote that refers to the importance of collaborating during the RI practice of diagnosing and designing:

> *"It could be helpful if we [TechCo and System Integrator] collaborate more closely in the beginning of an integration procedure. For example, by including one of our specialists in an early brainstorm session that TechCo organizes." (Calculator, System Integrator)*

Concluding, the data identified *customer involvement*, *proactive attitude,* and *collaboration* as the themes that are most important during Diagnosing & Designing.

4.1.2 Producing & Implementing
After diagnosing the problem or opportunity and designing a solution, both parties will collaborate in the Producing & Implementing phase. The data showed that the service provider has a leading role in the producing activities, with the customer as the dominant actor when the integration is implemented at an end-customer. However, both processes are strongly correlated since the outcome of producing determines the way of implementing. Therefore, sufficient *communication* was mentioned by both actors as a key to either success or failure within this phase:

> *"The communication and willingness to help when a problem emerged during the implementation of an integration is nowadays better than before." (Calculator, System Integrator)*

> *"When the System Integrator is implementing their solution at an end-customer, it happens sometimes that there is a discussion about the exact features of an integration. Some of our System Integrators told me that when they contact us to make things clear, the communication is inadequate and leads to serious delay. And this is absolutely not what the System Integrator wants when they are implementing a solution at an end-customer." (Account manager, TechCo)*

Especially the second quote is interesting with regards to the importance of clear communication during Producing & Implementing. We see that within the context of this case, the System Integrator must deal with the needs and demands of the end-customer during this practice. High efficiency and keeping downtime to a minimum are crucial to the success of the implementation of a solution. This can be achieved by means of

clear communication between TechCo and System Integrator.

A part of the communication between the service provider and the customer is included in the *documentation* of a solution. Several customers mentioned that the extensiveness and level of detail within the documentation of an integration should be aligned with the knowledge level and experience level of the customer. A project manager of a customer which is believed to have less than average technical knowledge describes how unclear documentation complicates their everyday practices:

> *"The documentation of a new integration can be very technical, which makes it difficult for us to understand. This makes it complicated to convince our customers to choose this integration." (Project manager, System Integrator)*

Following this quote, we can conclude that the documentation of an integration should be easy to understand for customers with a lower level of technical knowledge too. Otherwise, it can hurt the business of the customer and cause value co-destruction.

Based on the empirical findings, we can conclude that the RI practice Producing & Implementing within a complex market is often an iterative process. For example, it is common that once the System Integrator starts working on the implementation of a total solution, new integration challenges arise. Accordingly, these integrations then need to be produced by TechCo after the start of the implementation. This shows that the processes of Producing & Implementing can happen simultaneously, and therefore should be matched.

Furthermore, System Integrators are often working on winning a project for a long period before they are eventually assigned to the project, and can start implementing the solution. Being aware of the possibilities in the near future can help them to offer a solution with the best fit to the needs and wishes of the end-customer. We interpreted from the following citation that System Integrators want to be *informed* about integrations that will be produced in the future. This allows them to design better solutions, even though the needed integrations are not (totally) produced yet.

> *"I appreciate that we get informed about integrations that are, or will be, released. They [TechCo] don't have to inform us always in person, it can be done by an e-mail as well. It helps us with designing possible solutions for our customers." (Account manager, System Integrator)*

This quote indicates that being transparent about projects within the otherwise closed borders of the service provider can have a positive affect the value creating practices of the customer, and therefore contributes to value co-creation.

4.1.3 Promoting & Sharing

In the previous paragraphs, we presented evidence for RI practices that occur before and during the actual creation of valuable integrations. However, the potential for co-creating value does not end after those practices. Once an integration is produced and implemented, opportunities for value co-creation through Promoting & Sharing arise.

> *"When I make a very interesting solution for a customer, including a TechCo integration, it can be very helpful if TechCo uses this case in one of their whitepapers. This would benefit both of us, since we can share to end-customers what we can achieve together." (Account manager, System Integrator)*

This quote from one of the account managers of a System Integrator is a typical answer when customers were asked how TechCo could increase the created value *after* the actual integration was produced and implemented. *Joint marketing activities* offer an opportunity for the service provider to join the value creating process of the customer, since these efforts are helpful for System Integrators to convince end-customer to select them.

The collected data showed that supporting the customer by being involved in marketing activities is not the only way to co-create value after the implementation of a solution. Even though the service provider of this study is not directly in contact with the end-customer, they can influence them indirectly by sharing *promotion materials*. One of the System Integrators formulated the added value of succeeding within this theme concisely:

> *"It helps us to convince a customer of the added value of an integration when we can show them that it has been a success at another company. Promotion of success stories by both TechCo and us is important in order to strengthen the best-of-breed strategy that we have."* *(Account manager, System Integrator)*

Especially the strength of sharing promotional materials *together*, and therefore present the integration as a result of the collaboration between both organizations, is something that stands out from this quote. It illustrates that the RI practice Promoting & Sharing can add extra value to the individual customers' practice of convincing the end-customer.

4.1.4 Supporting & Assisting
The last RI practice identified in this study is Supporting & Assisting. It relates to all direct interactions that are established in order to support the System Integrator during their activities that include, or are linked to, integrations. A commonly identified issue is *adequate response* to questions that are asked by the customer to the service provider. One of the account managers of a System Integrator managed to formulate his feelings around this topic accurately:

> *"Feeling unheard is worse than not getting an immediate solution."* *(Account manager, System Integrator)*

During several interviews, it became clear that customers do not necessarily expect a quick solution to every problem or question. However, they are demanding that the service provider responds to their questions within a reasonable period of time, and keeps them updated about the situation. In this way, System Integrators can inform the end-customer that is involved. This contributes positively to providing sufficient service and maintenance towards the end-customers.

In line with adequate responses, we see that *responsibility* is an issue that influences the co-creation of value. Both the service provider and customers indicate that it is harmful for both parties if the service provider fails to take the lead when problems like functionality issues occur. The data revealed many occasions where the customer reported to TechCo that there was a problem around the functionality of an integration. What happened next in these situations was that TechCo redirected the customer towards the vendor of the integrated system. Subsequently, this vendor did not act to solve the problem and pointed towards TechCo as the responsible supplier. Shifting responsibility prevents a quick fix of the problem, which turned out to be harmful for all parties involved:

> *"Competitors tell potential customers: 'You'll get in trouble with TechCo. When an error occurs, they will immediately redirect you to the vendor of the integrated system. And that other vendor will redirect you right back to TechCo.' This hurts the story of using integrations."* *(Account manager, TechCo).*

> *"A problem within an integration with TechCo's system and the system of another vendor emerged, and it caused a lot of trouble for our customer. We couldn't handle it properly because both TechCo and the other vendor didn't take responsibility for what happened. This ultimately led to losing my customer…"* *(Account manager, System Integrator)*

What we see within these quotes is the impact that TechCo has on the relationship between System Integrators and end-customers. When a problem with an integration occurs, it will be the

priority of the System Integrator to solve it as quickly as possible to minimize the dissatisfaction of the end-customer. However, it is likely that the System Integrator is to some extent dependent on the service provider within these situations. By taking the responsibility to assist the customer with problem solving, the service provider can co-create value for the customer. On the other hand, a lack of responsibility will cause a decrease of co-created value.

Furthermore, the data identified problems with finding the correct channels to ask for *support* around integrations. It happens too often (according to both the customers and service provider) that requests for support do not end up at the right person's desk. Several customers noted that they do not know who to contact when they need answers to specific, often technical, questions around integrations:

> *"I am currently missing a communication channel that helps me with all the support that I need around integrations. Maybe there is such a channel, but I could not find it." (Account manager, System Integrator)*

Within the case of this study, the service provider is aware of this issue:

> *"We hear a lot that they [System Integrators] don't know who they need to call when there is a problem with an integration." (Account manager, TechCo)*

TechCo has a general support desk that handles all kind of questions. However, the knowledge of these support employees with regards to integrations is limited. Therefore, customers are not always supported within a sufficient time frame. This has a negative impact on the internal practices of the customers.

> *"Most of the support is handled via the support ticket system of TechCo. I feel that they try to help me, but sometimes it just takes too long before I get a sufficient answer. When they do not*

> *know the answer immediately, I feel that their interest to really support me reduces." (Project manager, System Integrator)*

This comment of a project manager of one of the customers shows that the general support desk fails to provide System Integrations with quick help. Like a lack of responsibility, insufficient support negatively affects the relationship between System Integrators and end-customers. It proves once more that direct interactions between service providers and customers can have, next to positive outcomes, negative outcomes too.

4.2 Interpreting the RI Practices

In this chapter, we will interpret the RI practices and related themes that this study reveals. We will discuss how the service provider's ability to align the RI practices with the customer's value creating process relates to the co-creation of value-in-use by presenting an empirically grounded framework (Figure 3), based on the theoretical framework presented earlier. Furthermore, remarkable differences in value perception will be discussed.

4.2.1 The Process of Value Co-Creation through Direct Interaction

The framework presented below is introduced to visualize our interpretation of the empirical findings of this study. We included the relevant resources and practices of the service provider and the customer in, respectively, the provider sphere and customer sphere. This study focuses on value co-creation in the joint sphere, and therefore we included resource integration only within this sphere.

The four RI practices that this study identifies have a central place within the direct interaction between the service provider and the customer. The framework illustrates that the level of alignment between these four RI practices and the practices within the value creating process of the customer decides whether value co-creation or value co-creation will emerge. This crucial level of alignment of each of the RI practices is

driven by the related themes, which we labelled as *drivers* and are presented directly underneath every RI practice.
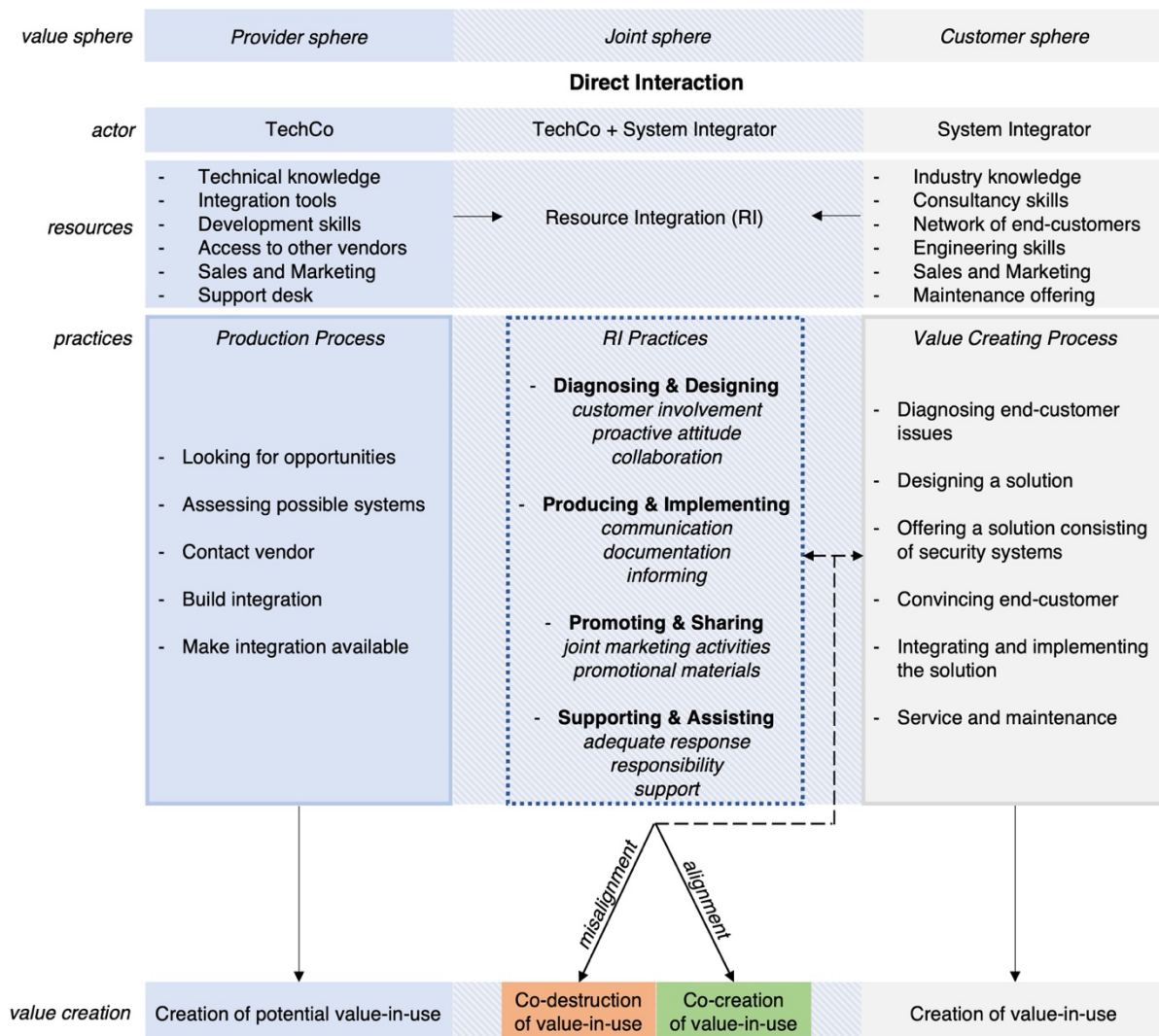
value sphere	*Provider sphere*	*Joint sphere*	*Customer sphere*
		Direct Interaction	
actor	TechCo	TechCo + System Integrator	System Integrator
resources	- Technical knowledge - Integration tools - Development skills - Access to other vendors - Sales and Marketing - Support desk	Resource Integration (RI)	- Industry knowledge - Consultancy skills - Network of end-customers - Engineering skills - Sales and Marketing - Maintenance offering
practices	*Production Process* - Looking for opportunities - Assessing possible systems - Contact vendor - Build integration - Make integration available	*RI Practices* - **Diagnosing & Designing** *customer involvement* *proactive attitude* *collaboration* - **Producing & Implementing** *communication* *documentation* *informing* - **Promoting & Sharing** *joint marketing activities* *promotional materials* - **Supporting & Assisting** *adequate response* *responsibility* *support*	*Value Creating Process* - Diagnosing end-customer issues - Designing a solution - Offering a solution consisting of security systems - Convincing end-customer - Integrating and implementing the solution - Service and maintenance
value creation	Creation of potential value-in-use	Co-destruction of value-in-use Co-creation of value-in-use	Creation of value-in-use

Figure 3 - The Process of Value Co-Creation through Direct Interaction

4.2.2 RI practices

Based on the outcomes of the interviews, we could identify four practices that occurred in every resource integrating process while an integration was co-created. These RI practices are *Diagnosing & Designing, Producing & Implementing, Promoting & Sharing,* and *Supporting & Assisting*. These practices are slightly different than those identified in other studies, such as the five collaborative activities in the context of knowledge intensive services (Aarikka-Stenroos & Jaakkola, 2012) or public transportation (Echeverri & Skålén, 2011). We assume that the differences are explained by the

variations in context. However, there is an interesting overlap with the five collaborative activities identified by the case study that was conducted in the context of knowledge intensive services and the present case study, since *diagnosing, designing, producing,* and *implementing* emerged in both studies (Aarikka-Stenroos & Jaakkola, 2012). We will elaborate shortly on the differences. Within this study, we did not find empirical evidence that *organizing process and resources* and *managing value conflicts* can be considered as separate RI practices that occur in direct interactions. We agree that organizing the process and managing

conflicts are important factors during value co-creation, but these activities are present in every co-creating RI practice. Therefore, we consider these activities to be on a higher level and do not include them as one of the RI practices.

Promoting & Sharing and Supporting & Assisting are RI practices that are not specifically mentioned in the analyzed existing literature (Aarikka-Stenroos & Jaakkola, 2012). However, these topics came up frequently during the interviews with both TechCo and System Integrators and therefore we segmented them as separate RI practices. The frequency of occurrence of these topics within the data was not the only reason to include Promoting & Sharing and Supporting & Assisting in our list of RI practices. The data analysis showed that the alignment of these practices with the individual practices of the customer had a significant impact on the co-created value, which emphasizes the relevance of these RI practices. However, we make an important note that RI practices can be different in other contexts. Furthermore, the practices do not always follow each other in a linear fashion. The findings showed that the process of resource integration is often iterative, since the actors can move between RI practices when circumstances change.

4.2.3 Drivers for alignment and misalignment of RI practices

Based on our theoretical framework, we expected that the alignment between RI practices and the value creating process of the System Integrator would have an impact on the emergence of either value co-creation or value co-destruction. Our case study confirms this theoretically grounded assumption based on the data analysis. However, our study found evidence on a micro foundational level, that current studies on alignment of practices have not yet presented (Echeverri & Skalen, 2021; Skålén et al., 2015). These studies identified that alignment or misalignment of practices within direct interactions has an impact on the co-creation of value.

Nevertheless, these studies do not provide evidence of *how* alignment or misalignment occurs. By conducting a micro-level case study, we were able to identify what factors decide whether alignment or misalignment occurs within direct interactions that potentially lead to value co-creation. Within every RI practice, our data analysis identified a set of themes that function as *drivers* that influence the fit between the RI practice and the customers' individual practices. By providing evidence of the existence and importance these drivers, we expand the knowledge around the micro foundations of value co-creation.

Within every RI practice that our study reveals, two or three main drivers that determine whether there is alignment or misalignment between the RI practice and the customers' individual value creating practices were identified. For example, interviewees of System Integrators identified *customer involvement, proactive attitude* and *collaboration* as themes within the practice of Diagnosing & Designing that determine whether the outcomes of this practice fit with their individual practices. If the customer evaluates the performance of the service provider within these themes as sufficient, it will contribute to a better fit of the overarching RI practice with the related customers' practice(s). Therefore, we conclude that the identified themes operate as drivers for the alignment of RI practices. The other identified drivers are *communication, documentation,* and *informing* (Producing & Implementing), *joint marketing activities* and *promotional materials* (Promoting & Sharing), and *adequate response, responsibility,* and *support* (Supporting & Assisting). It is plausible that these drivers are different in relationships between other service providers and customers. Just as with RI practices, the context will have an influence on which drivers will appear. However, based on the findings of this study, it is very likely that a certain set of drivers can be identified within any process of value co-creation, and we argue that these drivers are crucial for the occurrence of alignment or misalignment of RI practices.

It is important to notice that the identified drivers can only indirectly influence the co-creation of value. Performance within these

drivers increases or decreases the level of alignment of the RI practice and the customers' practice, but do not have direct impact on the co-creation of value. In the end, we agree with other researchers who identified that alignment of practices positively influences the emergence of value co-creation (Echeverri & Skalen, 2021; Skålén et al., 2015).

Next to the positive effect of the alignment of RI practices on value co-creation, our data analysis shows evidence of a negative effect too. A typical example is the documentation of an integration. The fact that TechCo describes the content and specifications correctly, does not necessarily mean that this will contribute to the creation of value. Account managers of the System Integrator noted that the language in the documentation is often too technical, and therefore they are not able to interpret what the advantages for end-customers are. This hinders them when they are trying to convince the end-customer to choose for a certain solution, which can ultimately lead to losing a tender and therefore destructs potential value. It is proof that misalignment between the RI practice Producing & Implementing and the customers' practice of convincing the customer decreases the co-creation of value. Within this RI practice, the data analysis identified communication, documentation, and informing as the main drivers. Therefore, we can conclude that a poor performance within these drivers contributed to misalignment of the RI practice. This resulted in value co-destruction, which is a finding that is in line with the findings of previously mentioned existing literature (Echeverri & Skalen, 2021; Echeverri & Skålén, 2011; Skålén et al., 2015).

4.2.4 Value perception
Another interesting outcome of the data analysis was that the perception of value co-creation was sometimes different for both actors. During the interviews, employees of TechCo were focusing mainly on the integration as the end-product of the value co-creation process. In contrast, interviewees of the System Integrators were reflecting more on the total process of co-

creation. This resulted in some remarkable contradictions. In some cases, employees of TechCo reflected relatively positive on a co-created integration. However, employees of the involved System Integrator highlighted that they have had negative experiences during the creation of this particular integration. This negatively influenced their overall perception of the value of that integration. It indicates that the service provider of this case was not (fully) aware of the impact that the total resource integration process had on the value of the integration.

5. Discussion & Conclusion
5.1 Reflections on study
This study contributes to a better understanding of how value co-creation in B-to-B context occurs. By analyzing direct interactions between a service provider and its customers on a micro-level, we were able to explore the micro foundations that impact the emergence of either value co-creation or value co-destruction in B-to-B context. We found that direct interactions consist of four RI practices: *Diagnosing & Designing, Producing & Implementing, Promoting & Sharing,* and *Supporting & Assisting*. In order to create value together, service providers and customers need to integrate their individual resources during these practices. However, the process of resource integration within these RI practices does not necessarily result into value co-creation. This study found that the level of alignment between the RI practices and the individual value creating practices of the customer is crucial for successful value co-creation. In line with recent literature, this study presents evidence that alignment of RI practices will lead to value co-creation, while misalignment leads to value co-destruction (Echeverri & Skalen, 2021).

Furthermore, the micro-level approach of this study allowed us to increase the understanding of the deeper foundations that determine *how* alignment or misalignment will occur within direct interactions. We found that within every RI practice, two or three *drivers* will determine the level of alignment between the joint RI practices and the customers' individual

practices. The performance of the service provider within these drivers will directly influence the level of alignment between RI practices and the customers' individual practices, and therefore indirectly influence the emergence of either value co-creation or value co-destruction. This answers the first research question of this study: *"How does alignment and misalignment of resource integration within direct interactions between service providers and customers occur in B-to-B context?"*.

The findings mentioned above are fundamental to provide service providers with theoretical- and empirical grounded advice on how they should anticipate to the identified process of value co-creation during direct interactions (which is our second research question). Service providers that want to increase their competitive advantage by co-creating value with customers should be focused on two objectives. Firstly, firms should gain a thorough understanding of the value creating process of the customer. This will help them to analyze whether their RI practices are aligned to it. Secondly, they should adapt the firm's performance within the drivers of the RI practices towards the customers' individual practices. Doing this sufficiently will increase the service providers' chances of succeeding in value co-creation with their customers.

5.2 Theoretical contributions

Research on value co-creation has increased in both service marketing literature and practices-based literature. We contributed to gaps in both streams by conducting micro-level research on the direct interactions between a service provider and its customers in a B-to-B market.

Current research in service marketing literature agrees that only direct interactions between actors enable value co-creation (Grönroos & Gummerus, 2014; Grönroos & Voima, 2013). However, most studies on these direct interactions have a macro-level perspective and therefore they lack detailed information on *how* value is co-created within these interactions (Grönroos, 2017). We contribute to this gap by conducting a single case study that focuses on the

key micro foundation of value co-creation: resource integration (Grönroos, 2011). According to service marketing literature, successful value co-creation stems from successful resource integration (Plé & Cáceres, 2010). This study explains on a micro-level, based on empirical evidence, how resource integration impacts value co-creation. We found that resource integration happens within a set of practices, which we labelled as resource integrating practices (RI practices). Based on the data analysis, we can conclude that simply integrating resources of both actors within these practices does not necessarily lead to value co-creation. We found empirical evidence that the level of alignment between these RI practices and the customers' value creating process determines whether value co-creation or value co-destruction will emerge. This study contributes to service marketing literature on value co-creation by arguing that resource integration happens within RI practices, which need to be aligned with the customers' value creating process in order to result into value co-creation (Aarikka-Stenroos & Jaakkola, 2012; Grönroos, 2017; Makkonen & Olkkonen, 2017; Plé & Cáceres, 2010).

Key literature on value co-creation that is based on practice theory already agrees that resource integration happens within practices (Echeverri & Skålén, 2011; Schau et al., 2009; Skålén et al., 2015). However, the identified practices within these studies are different than the four RI practices that our study reveals. We attribute this to the unique contexts of the multiple case studies. Current research based on practice theory has focused predominantly on identifying whether the alignment of practices (either *in-between* or *within* practices) impacts the co-creation and co-destruction of value (Echeverri & Skalen, 2021; Skålén et al., 2015). However, they lack to explain *how* the alignment of practices occurs. This study fills this gap by identifying the existence of *drivers*. Every RI practice is closely related to a set of themes that drive the alignment between the RI practice and the customers' value creating process. In order to align the RI practices, and therefore co-create value, service providers should perform within

these drivers in a way that it has a positive impact on the individual value creating capabilities of the customer. This finding contributes to current value co-creating literature that is based on practice theory (Echeverri & Skalen, 2021; Skålén et al., 2015). It helps us to understand how the (crucial) alignment of resource integrating practices occurs in practice.

5.3 Managerial implications

Value co-creation offers an interesting opportunity for service providers to increase its competitive strength. However, successfully collaborating with customers and thereby creating value together is not an easy job. It is crucial that the firm understands how their customers create value individually. How do they use your resources? What is important for them? Only if the service provider has the right answers to these kind of questions, value co-creation becomes an achievable goal. Therefore, we suggest that service providers should invest in the relationships with their customers in order to get a precise, clear and complete picture of the customers' individual value creating process. Once the service provider has a thorough understanding of this process, their focus should shift towards aligning the collaborative RI practices to it. This can be achieved by adapting the activities and performances during a RI practice towards the customers' individual practices that are affected. This prevents co-creating resources that will have a neutral or even negative impact on the value perception of the customer.

This study provides a framework that managers can use to analyze the RI practices that occur within the direct interactions with their own customers. By taking this approach, managers can separate the different stages during the collaboration with their customers, which is helpful for targeting the practices that need development. For every RI practice, managers can collect both internal and external data in order to analyze whether the alignment with the corresponding customers' practice is sufficient. While zooming in on the RI practices that need improvement, managers should pay attention to

drivers that have impact on the alignment. These drivers are themes or issues that often occur, and influence the value perception of the overarching RI practice. In this way, managers can distinguish the drivers in which the firm is underperforming and therefore cause misalignment with the customers' processes. How these drivers need to be improved is highly dependent on the context and situational circumstances. However, our data shows that in some cases, even minor changes can have a huge impact on the level of satisfaction of the customer. It all comes down to understanding what the customer needs and demands, and the willing of the service provider to act upon it. Therefore, we suggest that managers should put great effort in connecting closely with their customers. The value perception of this group will ultimately determine the success of the firms' value co-creation efforts, so service providers must ensure that they really know what is on their customers' minds.

Additionally, managers of service providers should involve all their employees on their co-creation intentions. Especially employees that are often in direct contact with customers (also known as frontline employees (Chou, Huang, & Lin, 2018)) can have a critical impact on customer satisfaction (Ramezan, 2011) and loyalty (Stock, Jong, & Zacharias, 2017). An example: in case it is highly important for a customer, marketeers and sales employees can make the promise to a customer that support issues will be quickly fixed. However, the marketeers and sales employees will not be the persons that can actively keep this promise. When a support issue pops up, the customer is likely to directly interact with the support desk. Therefore, it is crucial that frontline employees, such as support employees, are involved with the value co-creation strategy as well, so that they know that quickly solving the issue for this customer has top priority. Creating awareness and communicating the decisions made with regards to improving the firm's performance on important drivers within RI practices towards employees within all layers of the organization is of great importance to increase the value co-creation success of the firm.

5.4 Limitations and future research

This study examined how value is co-created or co-destructed by conducting a single case study devoted towards the direct interactions between a service provider and its customers in B-to-B context. It shows that value co-creation is a function of the alignment between RI practices and the customers' value creating process, which is a relationship that is driven by the firm's performance on a set of drivers. However, this research has some limitations that indicate future research directions.

Firstly, this study focuses on the firm-customer relationships of only one service provider. Although the RI practices that this study reveals were present in all the direct interactions that were explored, it remains unclear if similar practices exist in the relationships of other service providers. Therefore, we suggest conducting multiple case studies to examine if our findings are generalizable to other service providers in B-to-B context.

Moreover, the service provider of this case study operates in a specific context and country. Accordingly, we were only able to interpret data that was collected within these circumstances. This data analysis resulted in a set of RI practices and related drivers, as presented before. However, it is unknown if, and to what extent, the context of the case had an impact on these findings. It would be interesting to analyze in future studies what the impact of the service provider's context is on the process of value co-creation. Therefore, we suggest conducting similar single case studies focused on service providers in other markets and countries, with a focus on the impact of the context.

Lastly, this study contributes to our knowledge about how value is co-created by revealing the impact and importance of the alignment of RI practices with the customers' individual process. However, it does not provide empirical evidence of the efforts that service providers can take, or the strategies that they can follow, in order to increase this crucial level of alignment. Therefore, we recommend micro-level research that reveals how service providers deal with the challenge of aligning, and re-aligning, value co-creating practices.

6. Acknowledgements

7. References

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