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**The role of risk management practices in IT service procurement:
A case study from the financial services industry**

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Abstract

This study investigates the risks of service procurement and the role of risk management practices during service procurement processes for IT services. As a result, the study provides a typology for understanding risk in the IT service procurement context. The findings indicate that several practices related to risk management during the service procurement process are important in reducing the probability and impact of risks. The study shows how a collaborative approach to risk management with service providers is also necessary to manage service disruptions. As such, the results of the study exemplify how risk management practices can support the procurement process for services. Based on the practice-based view, this study provides an explorative framework and propositions for enhancing service performance through the adoption of risk management practices.

Keywords: Service procurement, risk management, service performance, practice-based view

1. Introduction

The procurement of services is associated with exposure to multiple risks that may cause failures in service provision (Harland *et al.*, 2003; Ellram *et al.*, 2008; Lacity *et al.*, 2016). Buying services involves increased levels of risk for the buyer organisation due to complex interactions and inherent uncertainty associated with service exchanges (Vargo and Lusch, 2008). Thus, the service procurement process is complex and unique and requires addressing risks that could prevent the buyer from achieving the desired outcomes of service purchases (Ellram and Tate, 2015; Wynstra *et al.*, 2018).

The purpose of risk management practices is to support the procurement decisions and supply management by reducing the likelihood and negative effects of disruptions that originate from suppliers or supply market characteristics (Zsidisin, 2003). Practices for managing risk can be implemented to improve the identification, assessment, mitigation, and monitoring of risks that relate to the outcomes of procurement decisions (Tummala and Schoenherr, 2011). Although prior research has not explicitly discussed risk management in the service procurement context, studies show that many practices during the service procurement process are implicitly related to the purpose of managing risks. For example, the generation of detailed service specifications reduces uncertainty by ensuring that expectations and service provision outcomes are well-defined and understood (Ellram *et al.*, 2004). Similarly, the implementation of governance mechanisms, that is, contractual, relational, and outcome-based governance, supports the prevention of service failures (Gelderman *et al.*, 2015; Akkermans *et al.*, 2019). It is well understood that collaborative practices between buyers and service providers during procurement and service provision are valuable and prevent undesired outcomes (Grönroos, 2011; Grudinschi *et al.*, 2014). Overall, studies show that the use of practices that are implicitly related to managing risks also improves service performance, including the service quality, service levels, and customer satisfaction (Ellram *et al.*, 2008; Tate and van der Valk, 2008; Akkermans *et al.*, 2019).

Even though studies acknowledge the complexities of service procurement and the need to manage risks, explicit research into risk management remains limited; accordingly, more research on the topic is needed (Wynstra *et al.*, 2015). Overall, previous research has identified useful service procurement practices, but a detailed

understanding of how activities contributing to risk management are connected to these practices remains unclear. Prior studies have not holistically considered the buyer organisation's risks nor their strategic aim to reduce them and recover from service disruptions by implementing practices during the service procurement process. Therefore, further research into the risks and the explicit practices used to manage them is needed to understand how the risk exposure of services can be more efficiently controlled during the procurement process.

This study addresses these gaps by adopting the practice-based view (PBV) as a theoretical background. By exploring service procurement risks and their management methods through an in-depth case study, this research provides a theory elaboration perspective on risk management between the buyer organisation and its service providers during the service procurement process. We adopt IT service procurement as a context because it represents an important domain for service procurement research (Luzzini *et al.*, 2014; Wynstra *et al.*, 2018), it has been acknowledged as a high risk procurement category (Ellram *et al.*, 2007), and it is a significant procurement spending category globally (Gartner, 2022). We explore how the implementation of risk management practices during the stages of service procurement may improve the performance of services by addressing the following research questions: (RQ1) *What are the major risk factors related to the procurement of IT services?* and (RQ2) *What practices are used to manage risks during the service procurement process?* The results provide three important contributions for service procurement research and practice. First, this study extends the knowledge on typical risk factors related to the procurement of IT services. Second, it highlights the importance of implementing specific practices to manage risks during the service procurement process and explores their benefits for the buyer organisation. Third, by using the PBV as a theoretical lens, the results contribute propositions and an explorative framework for increasing service performance.

2. Risk management in service procurement

2.1 Practice-based view

The PBV focuses on defined firm-level activities and practices that can be imitated by other firms (Bromiley and Rau, 2014). A key difference of PBV when compared with major strategic management theories, such as the resource-based view or dynamic capabilities view, is that it does not attempt to explain periodic or sustained competitive advantage of incumbent firms; rather, it focuses on explaining performance variation across the entire range of firms through the use or non-use of practices (Carter *et al.*, 2017). According to the PBV, all practices that specify managerial actions and behaviour can potentially explain performance variation among firms. The effect of practices can be considered for firm performance, but also intermediate performance constructs that are relevant to the context of the research (Bromiley and Rau, 2014). Thus, the PBV allows for the simultaneous extraction of strong theoretical and practical conclusions that consider practices applicable for firms of different sizes and industry characteristics. However, the PBV also notes that the effectiveness of practices can be dependent on multiple contingent factors (Bromiley and Rau, 2014); as such, replicated practices across firms or industries may not result in similar outcomes.

Expanding on the PBV, the supply chain practice view (SCPV) integrates the intra-organisational structure and inter-organisational networks as critical factors to be considered when implementing managerial practices (Carter *et al.*, 2017). The SCPV includes supply chain stakeholders, such as suppliers or service providers, within the organisational level of analysis and considers both individual and relational performance (Carter *et al.*, 2017). Similar to the relational view (Dyer and Singh, 1998), the SCPV

asserts that the total performance of the firm is a combination of the individual and relational performance, in which relational performance benefits are mutually acquired and cannot be generated independently outside the relationship. The extent of organisational-level analysis can vary, as it can focus on practices between the internal- and dyad-level or even extend towards strategic networks of actors within the focal company's supply chain, depending on the chosen scale of interest. This study extends the investigation of practices primarily to the level of the buyer–service provider dyad, where the buyer organisation is assumed to have an incentive to govern risk management activities during the service procurement process. This is consistent with previous research, as the buying organisation is the one most concerned about the success of its service purchases, particularly when services have a large impact on the experience of its end customers (van Mossel and van der Valk, 2008).

2.2 Risk management practices

Risk management process is commonly used in both research and practice to outline the process structure for measures aiming to reduce the probability and impact of risks between organisations (Hallikas *et al.*, 2004; ISO, 2021). Practices for managing risks are differentiated into activities that focus on the continuous identification, assessment, mitigation, and monitoring of risks (Tummala and Schoenherr, 2011). Based on the PBV, the implementation of such practices is assumed to have weak or non-existent isolating mechanisms (Bromiley and Rau, 2014). The risk management process in relation to practices for managing risks specifically related to service purchases has not been discussed in previous research. This is an important distinction, because managing the risks of services is assumed to require more effort from the buyer when compared to other types of purchasing transactions, a factor which may also be reflected in the use of practices (Wynstra *et al.*, 2018). Existing research lacks comprehensive accounts of the routines that underlie these practices. However, the principles are applicable for the purposes of this research. For example, the goal of risk-identifying activities is to discover all sources of risks associated with the buyer's service purchases (Kern *et al.*, 2012). Moreover, routines contributing to risk assessment can be used to evaluate the importance of identified service risks and the way in which they are connected to the performance of the buying organisation (Zsidisin *et al.*, 2004). Mitigating risks, on the other hand, consists of the buyer's measures aimed at decreasing the probability of service-related risks and their negative impacts. Finally, monitoring risks refers to activities of continuous risk review as well as the following of changes in the environment related to the buyer's service operations (Hallikas *et al.*, 2004).

2.3 Risk factors related to service procurement

A broad definition of risk addresses it as a chance for loss or other undesired consequences (Harland *et al.*, 2003). Research suggests that risk in the procurement of services primarily manifests as two undesired outcomes for the service buyer, which also reflect as service failures: (1) financial losses (overpayment) and (2) loss in the performance of the service (underservicing) (Ellram *et al.*, 2008). Both issues imply that service provision cannot be facilitated by intended costs or quality for the service user, and thus may require extensive corrective actions from the buyer organisation.

Risk should be considered unique in the context of service procurement due to the transaction attributes of services (i.e., intangibility, heterogeneity, perishability, and inseparability); these attributes are reflected, for example, in the complex dynamics related to service outsourcing and the governance of service provision (Ellram *et al.*, 2007). Therefore, it is also implied that exposure to risks may be more complex. Studies

support this notion by showing that the risk of service failure is often associated with multiple interdependent factors that are related to the service process (Ellram *et al.*, 2008; Wynstra *et al.*, 2015; Sengupta *et al.*, 2022). The presence of such factors may not only hinder the buyer's capacity to effectively buy services but also increase vulnerability to service disruptions during service provision. Based on the review of literature, the key risk factors related to the procurement of services are illustrated in Table 1.

Table 1 – Risk factors related to service procurement

Risk factor	Source
Financial instability of the service provider	Ellram <i>et al.</i> 2008; Selviaridis and Norrman, 2014
Incomplete specifications	Ellram <i>et al.</i> 2008
Inability to monitor performance	Ellram <i>et al.</i> 2008
Destabilisation of service definitions	Selviaridis <i>et al.</i> 2011; Gelderman <i>et al.</i> 2015
Subjectivity in cost or quality assessments	Mitchell, 1994
Poor communication and distant relationship; lack of collaboration during the service process	van der Valk 2008; Grudinschi <i>et al.</i> 2014; Raddats <i>et al.</i> 2017
Opportunistic behaviour	Ellram <i>et al.</i> 2008; Wynstra <i>et al.</i> 2015
Flawed processes for service procurement	Ellram <i>et al.</i> 2007
Lack of supply management participation in service procurement	Ellram <i>et al.</i> 2007
Hidden costs	Barthélemy 2001; Ellram <i>et al.</i> 2007
Complexity in the configuration of the service provision relationship	Wynstra <i>et al.</i> 2015; Sengupta <i>et al.</i> 2022
Negative reputation of the service provider	Wynstra <i>et al.</i> 2015

Risk is typically found to be related to an unfavourable development in the service provider's market or financial performance (Ellram *et al.*, 2008; Selviaridis and Norrman, 2014). Another major source of risk is the buyer's inability to adequately specify expectations related to service provision or maintain accurate performance measurement during service provision (Ellram *et al.*, 2008). Challenges in understanding requirements can also lead to the destabilisation of service definitions and the iterative reassurance of service characteristics during the procurement process (Selviaridis *et al.*, 2011; Gelderman *et al.*, 2015), which can increase costs and delays in service delivery. Service procurement is also challenging due to potential subjectivity in quality evaluations and assessment of the pricing or cost structures for purchased service bundles (Mitchell, 1994). Purchased services are vulnerable to disruptions because the value of services is co-created and may require emphasis on a high level of collaboration and trust between the buyer and service providers, which can be difficult to facilitate (Gelderman *et al.*, 2015). Similar issues can be attributed to poor communication or distant relationships between the buyer and service provider (van der Valk, 2008; Grudinschi *et al.*, 2014). Risk may also be prevalent due to the uncertainty associated with a dependency on the market for service provision, which can lead to opportunistic behaviour of the service provider or high transaction costs when switching to an alternative service provider (Ellram *et al.*, 2007, 2008). Moreover, it has been proposed that flaws in the implementation of procurement processes and the lack of supply management involvement in an organisation's service purchases may cause problems and hinder improvements related to service procurement (Ellram *et al.*, 2007). Some aspects of risk have also been found to be related to the nature of the configuration of the service-provision relationship. For example, if a service provision configuration is triadic, the buyer must consider the effects of factors such as incompetency or the adverse reputation of the service provider on themselves and their customers (Wynstra *et al.*, 2015; Sengupta *et al.*, 2022).

2.4 Risk management during the service procurement process

The complex dynamics of service procurement have led to the understanding that the buyer organisation must be prepared for large investments of time and resources to facilitate successful service development and use ex post contract (Wynstra *et al.*, 2018).

This indicates that risk management practices during the service procurement process may be valuable in reducing uncertainty related to the procurement outcomes and preventing service failures. According to Raddats *et al.* (2017), risk management is an interactively developed capability in buyer–service provider dyads that is required to prevent failures. Without integrated practices to manage risks, a fundamental vulnerability to unexpected service disruptions exists when services are being provided. Therefore, a general assumption is that the buyer should invest resources into the management of service-related risks when the preventable losses of service failures exceed the costs of investment (Ellram *et al.*, 2007). Risk management during the service procurement process should be especially considered when purchased services have direct and meaningful influence on the buyer’s internal or downstream customers (Wynstra *et al.*, 2006).

This study adopts the service procurement process as a background to investigate the buyer organisation’s practices for managing risks. The service procurement process includes the phases of detailed service specification, the selection of service providers, negotiations and contracting, and service provision ex post contract (Lindberg and Nordin, 2008; Heinis *et al.*, 2022). In line with Wynstra *et al.* (2018), we separate this process into three stages: (1) ex ante contract stage, (2) service provider selection and contracting stage, and (3) ex post contract stage. A review of the literature suggests that although there are many important activities that the buyer organisation should pursue to manage challenges during different stages of the service procurement process (Table 2), there have been limited investigations into risk management practices.

Table 2: Overview of the buyer organisation’s key challenges and activities during the service procurement process

Stage	Key challenges	Activities recognised in literature	Source
Ex ante contract	Inability to establish sufficient service specifications	Understanding service needs Identifying stakeholders related to the service Choosing the service specification method Verifying the details of the specifications Collaborating with service providers to develop specifications	Axelsson and Wynstra, 2002; van der Valk and Rozemeijer, 2009; Wynstra <i>et al.</i> , 2018
Selection and contracting	Adverse selection and sub-optimal governance	Choosing the degree of outsourcing Screening for quality indicators of service providers Deciding the formality of contractual specifications (flexible vs inflexible) Ensuring exit capacity Performance-based contracting Establishing performance indicators and reporting procedures	Ellram <i>et al.</i> , 2008; Molin and Åge, 2017; Akkermans <i>et al.</i> 2019; Perner and Skjølvsvik, 2019
Ex post contract	Inadequate monitoring and service performance loss	Being involved in the service delivery process and retaining knowledge on the service process Revisiting service specifications Monitoring SLAs and KPIs Building trust and cooperative relationships Learning over time In-housing service processes	Ellram <i>et al.</i> , 2008; Selviaris <i>et al.</i> , 2011; Gelderman <i>et al.</i> , 2015; Raddats <i>et al.</i> , 2017

2.4.1 Ex ante contract

The buying organisation must ensure the service needs are accurately defined and specified to potential service providers (van der Valk and Rozemeijer, 2009) because otherwise, it faces a risk of incomplete specifications, which could remain a major issue, for example, in contracting and performance monitoring (Ellram *et al.*, 2008). The literature outlines many activities that support determining sufficient specifications in the ex ante stage. For example, service buyers may need to spend more resources to facilitate the comparison and verification of details related to the service characteristics and

available service providers (Wynstra *et al.*, 2018) and decide on the optimal specification method (Axelsson and Wynstra, 2002). Studies also show that identifying the stakeholders relevant to the service is crucial for correctly understanding specifications from the internal user perspective (van der Valk and Rozemeijer, 2009). The buyer could also seek collaboration with proficient service providers during early stages to develop the service process (van der Valk and Rozemeijer, 2009).

2.4.2 Selection and contracting

The buyer organisation must be able to select suitable service providers according to established criteria to initiate service development and subsequent service provision. This extends to considering the optimal degree of outsourcing to reduce risks (Ellram *et al.*, 2008). Service provider selection can induce challenges, for example, if the duration of an expected service provision is long or there are many alternative service providers available. Therefore, a key practice for the buyer organisation is to extensively screen its service providers prior to selection to validate the quality of the service provision *ex post* contract (Pemer and Skjølsvik, 2019). Because the quality of service provision is often difficult to validate beforehand, the service provider's past experience with the buyer's business requirements is important in the selection process, especially if the buyer has developed relationships with service providers that are known to be capable of delivering on expectations (Lacity *et al.*, 2016).

Contracting is one of the main governance mechanisms that contributes to risk management during the service procurement process. Contracts can be used to formally agree upon desired outcomes of the service provision, transfer risks related to service production, and prevent the opportunistic behaviour of service providers (Ellram *et al.*, 2008). However, the contracting of services is particularly challenging because the duration of service provision, service production, and use of services themselves are more complex when compared to goods (Wynstra *et al.*, 2018). Research suggests that if there are problems in defining services *ex ante* contract, contractual governance could be flexibly developed in all stages of the service procurement process to reduce risks (Gelderman *et al.*, 2015). Contract design is also a relevant consideration from the perspective of managing risks; for example, performance-based contracting is important in incentivising service providers and transferring risks via outcome-based governance (Selviaridis and Wynstra, 2015; Akkermans *et al.*, 2019). It is important for the buyer also to proactively establish performance indicators and reporting procedures to support performance monitoring (Molin and Åge, 2017).

2.4.3 Ex post contract

The complex transaction attributes of services imply that the buying organisation must direct resources to oversee service delivery, which emphasises *ex post* governance as an explicit risk management consideration (Ellram *et al.*, 2008). In addition to enforcing contractual requirements to reduce risks, the primary responsibility of the buyer is to develop relational governance to increase trust and collaboration with its service providers (Grudinschi *et al.*, 2014; Heinis *et al.*, 2022). Relational governance can be understood as an important risk management consideration, because purchased services may require collaborative mechanisms to align buyer–service provider interactions and business processes to manage risks during service provision (Grönroos, 2011). This may help, for example, in revisiting service specifications during service delivery (Gelderman *et al.*, 2015). Moreover, the buyer can choose to be more involved in the service delivery process to gain continuous feedback and retain tacit knowledge (Ellram *et al.*, 2008). The buyer's ability to cultivate the relationship and monitor its service providers also affects

the outcomes of service provision (Li and Choi, 2009). If purchased services are complex or close to the core competences of the buyer, seeking long-term alliances with the service provider may be a potent strategy to reduce risks and ensure successful outcomes of service purchases (Lindberg and Nordin, 2008). However, if collaboration with the service provider does not produce expected results, the buyer may also internalise activities to improve monitoring and control (Ellram *et al.*, 2008).

2.5 Research framework

It can be concluded that prior research has not explicitly considered routines related to the buyer's risk management practices and their potential significance during the service procurement process. While many important practices have been discovered (Table 2), studies have particularly lacked a systematic consideration of the buyer's efforts to identify, assess, mitigate, and monitor potential risks. Research on activities related to recovery from service disruptions during service provision is lacking. Especially in the *ex post* stage, managing the resilience of purchased services is important and ensuring the service provider's capabilities for effective service performance recovery is desirable for the buyer organisation (Sheffi and Rice, 2005; Battaglia *et al.*, 2012). Thus, the aim of this study is to discover and elaborate such practices. We combined the theoretical reasonings behind the PBV to investigate the conditions in which risk management practices during the procurement process are related to service performance. By following the PBV assumptions, it is further anticipated that risk management practices and their effectiveness are influenced by the presence of moderating factors, which further explains why practices may produce varying performance results across different firms (Bromiley and Rau, 2014).

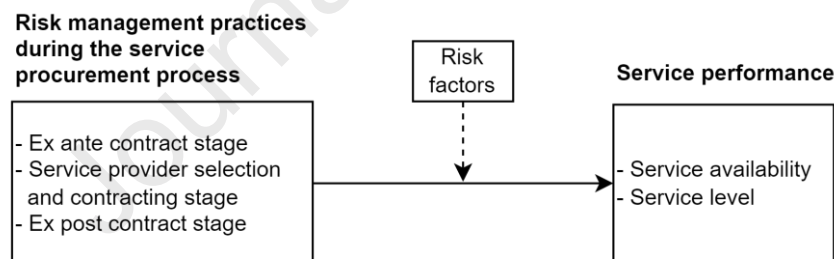


Figure 1 – Research framework

3. Methodology

3.1 Research setting and case selection

An exploratory, in-depth case study was conducted to investigate risk factors and the role of risk management practices during the service procurement process. This research adopts a theory elaboration approach (Ketokivi and Choi, 2014; Fisher and Aguinis, 2017), with the PBV as a theoretical lens to address how risk management practices support the service procurement process and are associated with the improved performance of IT services. The case study method was considered fitting due to limited previous research about the phenomenon (Eisenhardt, 1989; Dubois and Araujo, 2007).

The research was conducted in the field of financial services, involving a financial services company (henceforth: focal company) and its three IT service providers. The financial services industry is known for the necessity to maintain the availability of services and a resilient IT service infrastructure (Adeleye *et al.*, 2004), thus providing an ideal setting for the study.

The focal company was selected for the study based on its considerable IT service spending and expectations for guaranteeing service availability and service levels by managing risks. A major component of the focal company's business model is to provide digital services to its customers. The focal company has a considerably extensive background in a highly regulated industry and has witnessed a complete digital transformation of their business model as well as a continuous increase in the role of service procurement for their business. This trend has also increased the importance of risk management during the focal company's service procurement processes.

Due to an extensive reliance on outsourced IT services from strategic partners, the procurement of IT services plays a significant role in the focal company's operations. It is a part of the focal company's strategy to acquire IT service and infrastructure production, maintenance, and delivery from service providers. Typically, these include services such as cloud solutions, transaction systems, cyber security, and IT system integration. The primary service procurement categories of the focal company include IT service solutions, indirect services, and other business services, which are managed by approximately 50 employees. The focal company's service procurement strategy is influenced by the consolidation of service providers into key partners responsible for the provision of important services and around 80% of their total IT service procurement spend. This implies that the empirical results are concerned especially with service procurement from strategically important service providers of the focal company. Overall, the focal company has registered close to 500 relevant service providers that cover service provision for less critical service needs.

To support the investigation of risk management practices during the service procurement process, interviews with three IT service providers were conducted in addition to the focal company interviews. These service providers were chosen through snowball sampling based on the recommendations by the focal company. The selected service providers, characterised as strategically important partners for the focal company, play a significant role in providing IT services and collaborate closely with the focal company. Including data from service providers enhanced the understanding of the dynamics of risk management between the focal company and its service providers, contributing particularly to the construct of collaborating in risk management.

3.2 Data collection

Semi-structured interviews constituted the primary data sources for our research. To comprehensively map out aspects related to risk management between the focal company and its service providers, we conducted 14 semi-structured interviews with the representatives of the focal company and its three major service providers. The interview participants were chosen based on their substantial knowledge and expertise in procuring IT services and managing risks related to them. We interviewed the managers responsible for procurement, risk management, information security, and IT service management (Table 3). The interview protocol is shown in Appendix 1.

Altogether, 11 interviews with the focal company were conducted, in which some interviewees were interviewed twice and some once. To obtain more comprehensive data, we conducted three interviews with service providers associated with large service provision arrangements for the focal company. This included a total of five interviewees representing management positions and possessing in-depth experience with the focal company's account and IT service provision arrangements. The interviews were conducted remotely and lasted approximately 60 minutes. The interviews were recorded, and the researchers prepared notes to support initial data analysis. The recordings were transcribed to allow for in-depth qualitative coding and analysis. Moreover, secondary

data, including the focal company's publicly disclosed reports, were analysed to support the primary data analysis.

Table 3 – Case study participants

Interview	Company	Informant code	Organisational function and expertise
1	Focal company	FC1, FC2	Procurement
2	Focal company	FC3, FC4	Procurement
3	Focal company	FC5	Information security
4	Focal company	FC6	Risk management
5	Focal company	FC3, FC4	Procurement
6	Focal company	FC7, FC8	Procurement, Risk management
7	Focal company	FC9	Procurement
8	Focal company	FC10	Risk management
9	Focal company	FC1, FC2	Procurement
10	Focal company	FC11	Sustainability
11	Focal company	FC9	Procurement
12	Service provider A	SPA	IT service management
13	Service provider B	SPB	Procurement
14	Service provider C	SPC1, SPC2, SPC3	IT service management, Sustainability

3.3 Data analysis

NVivo was used for constructing a code database by comparatively analysing the interview data and supportive materials, such as notes and secondary data. To investigate the data, we employed the qualitative content analysis method (Miles and Huberman, 1994). Following the principles of this method, the data underwent a process of data reduction, data display, and conclusion-drawing. Thus, we were able to identify patterns, themes, and relationships within the data, contributing to a thorough understanding of the research phenomena. This allowed us to maintain the research focus in the theory elaboration, as outlined by Fisher and Aguinis (2017), in the following manner: (1) splitting known concepts, such as risk and risk management practices, to offer a more refined understanding of them and their role in the empirical setting; (2) examining relationship structures of the identified concepts and explaining their sequential interactions or outcomes during the service procurement process (the sequential relations of practices and routines during the service procurement process); and (3) analysing recursive structures and their interactions over time between the buyer and its service providers (such as collaboration, feedback effects, and continuous improvement).

We integrated the analysis with the existing literature by employing a flexible approach that involved moving between inductive analysis, driven by the data, and deductive analysis, guided by relevant theoretical frameworks. In particular, the inductive coding approach was used to identify first-order codes related to risk factors or risk management routines during the service procurement process. The coding of the risk management routines was based on identifying the focal company's key activities for managing risks during the service procurement process. Also, the data analysis involved linking inductive codes to constructs established in the literature, for instance, those related to the process of risk management, including the identification, assessment, mitigation, and monitoring of risks (Hallikas *et al.*, 2004; Tummala and Schoenherr, 2011; Kern *et al.*, 2012). However, the construct of collaborating in risk management emerged as a result of the inductive analysis.

The coding frameworks were iteratively assessed and cross-examined by the authors during the data analysis. The validity of the coding categories and frameworks were verified by a panel of the focal company's interviewees in a workshop after the interviews were conducted. Finally, the case description and findings were also evaluated by the case company representatives. Table 4, Figure 2, and Appendix 2 display the results of the data analysis.

4. Empirical findings

4.1 Risk factors affecting the focal company's procurement of IT services

During the focal company's procurement process for IT services, information on several risk factors is considered. Understanding the risk factors is essential because they may contribute to disruptions during service provision. Based on the analysis, the risk factors were classified into three contexts (Table 4) to reflect the sources of risk during the focal company's service procurement process. The risk factors were observed to be related to (1) the service providers, (2) the focal company's internal processes and governance for risk management, and (3) technology and the provision of IT services.

Table 4 – Risk factors related to the procurement of IT services

Context	Risk factors
Service provider	Insufficient operational capabilities Financial instability Regional instability Concentrated spend and lock-in effects Adverse reputation Lack of sustainability or business ethics
Internal processes and governance related to risk management	Lack of internal visibility and siloed information Ineffective human resource management Ambiguities in process ownership and task allocation between units Difference in risk perceptions Regulatory non-compliance Inconsistencies in risk information collection activities Lack of management support
Technology and service provision	Information security vulnerabilities Potential of user errors Insufficient duty separation Interdependency of service assets Low intensity of collaboration in risk management activities

4.1.1 Risk factors related to the service providers

According to the focal company, service providers represent an explicit dimension of risk, and, thus several types of risk factors that emerge from them are considered during the procurement process. For example, failure to select the right service provider or manage risks related to them was seen to lead to direct negative effects on the focal company's core business operations:

“At our company and many others in our industry, the service providers are essential to the supply chain. In that sense, we can think that almost all risks that we identify are related to outsourcing arrangements.” [FC6]

“We are very dependent on a few key service providers in our IT service production. If they have any serious errors and disruptions, it will have an instant effect on our business operations.” [FC6]

Regarding service providers, the focal company emphasised that, prior to making purchasing decisions, it is crucial to determine their sustained operational capabilities and financial stability. Without such assurances, the focal company is exposed to an increased risk of service disruptions, for example, due to problems in service delivery or financial issues of the service provider:

“In our industry, the most important thing is that the availability of IT services is continuous, which means that managing continuity is of primary importance to us,

as well as securing continuity from the service provider interface in all situations.” [FC7]

To control risk related to geopolitical matters, the focal company found it practical to consider location-specific characteristics of the service provider during all stages of procurement. For example, they considered the ongoing war in Ukraine to be a potential source of risk related to some of their service providers:

“If we look at the big picture, the situation with the war becomes concrete [for us]. Therefore, geopolitical risks, such as where the service provider operates and what its location is, are ultimately also significant.” [FC1]

Moreover, buying IT services may also expose the concentration of the focal company’s spend to only a few strategic service providers or a lock-in with undesired vendors, which may heavily increase the transaction costs of terminating contracts or rearranging service management processes. This implies that understanding and managing risk related to concentrated spend or lock-in is a major consideration during decision-making. However, not concentrating the procurement of IT services was also partly seen to be contradicting with forming partnerships, which is a key strategy in managing service providers for the focal company:

“Concentration risk can also be found [relevant for the focal company], so if the same team or same service provider has a significant amount of service production, if one of them compromises, there can be challenges.” [FC3]

“That is a very difficult risk to manage because it fully contradicts a partnership, which is typically a risk-decreasing factor when it succeeds. From a risk diversification perspective, it is good to have many service providers, but then it doesn’t generate any added value.” [FC4]

Reputation, sustainability, and business ethics were also considered potential risk factors related to the service providers. Interestingly, sustainability-related risks were recognised as having relatively low importance currently, apart from meeting regulatory expectations. Nevertheless, the focal company deemed it essential to evaluate the service providers’ image and adherence to sustainable principles:

“Also, related to sustainability risks, we also attempt to identify them [...] they may not be as important as managing continuity or information security, but we refrain from working with service providers who do not act with the principles that we require.” [FC7]

“If we think about our service providers, one aspect [of sustainability-related risks] that has been emerging for a long time is the service provider’s responsibility and the type of working conditions they have. For example, if there is neglect in fulfilling the employment-related obligations, it manifests for us as an image risk. And that is not attributed to our partner, it is visible as our image risk.” [FC6]

4.1.2 Risk factors related to the internal processes and governance

The results showed that the focal company’s service procurement is vulnerable to multiple risk factors related to the internal processes and governance of risk management.

This category of risk factors is related broadly to the internal policies, guidelines, and procedures for risk management that are applied during the service procurement processes of the focal company. They were found to be primarily associated with the potential for unclear responsibilities and resourcing problems:

“I think that procurement is expecting certain things from other departments, we all expect everyone to be completing certain tasks [related to risk management]. But, practically, [these tasks] have not been recorded: there exists no document that sufficiently describes the responsibilities [of different departments]. If this were done, there would be more clarity.” [FC9]

Internally driven challenges emerged as one of the significant risk dimensions because they directly affect business processes associated with, for example, service procurement, information management, task coordination and continuous improvement in the focal company. The focal company considered a lack of mechanisms for standardising the internal visibility of procurement-related activities and reducing information silos to hinder fact-based decision making and effective monitoring of risks. Similarly, it was found that the unavailability of resources required to continuously plan, facilitate, and coordinate the upskilling and training of employees responsible for procurement activities can lead to work overload and intermittency in expected risk management tasks. An important indication by the focal company was also the potential obscurity caused by a lack of clarity in process ownership and task allocation between units or unresolved disparities in risk perception between internal stakeholders; these risk factors can lead to, for example, untaken risk mitigation actions:

“[Achieving a common understanding of risks] is a challenge. We don’t have a single location where we have collected, for example, risk information regarding a single service provider.” [FC9]

“In the worst case, occasionally, [managing risks] is dependent on the experience of a specific person and their contacts, but it can also be based on expertise and randomness. Whether there is time and focus [to resolve issues] and whoever yells the loudest [affects] whether some tasks take priority or not.” [FC4]

Due to a strong expectation of assuring regulatory compliance in the focal company’s procurement of IT services, we found the understanding and effective diffusing of various regulatory requirements an indication of the necessity to manage internal risk factors. For example, the focal company acknowledged that it has struggled to keep up with the growing regulatory demands of risk management. This increases vulnerability to non-compliance in the procurement of IT services, which may have severe negative implications for the focal company’s operations:

“Regarding the risk management of service providers, compliance to regulations is one of the most essential areas that we need to review. It is not enough that the provided service meets our expectations, we also have regulations that require us to manage, monitor, and assure [risks related to the service provider].” [FC4]

“Especially when all these regulations keep increasing, the responsibility to operate in compliance with these regulations also increases. The competence, training, and number of our staff has not kept up with the demands at all.” [FC8]

Finally, the results indicated that the lack of management support had somewhat challenged the focal company's pursuit of improving risk management for its service purchases, which could have detrimental effects in the long run. A lack of management support as a risk factor was identified from both the executive and department level. Such a lack of commitment in the hierarchy may be rooted in various reasons, but one potential explanation was implied in the notion that there had been differences between the risk perceptions of management and the functions associated with the service operations. This subsequently led to disagreement about the severity of risks, which diminishes the proactivity of risk management for service purchases:

“Management may think that everything is fine [...], but then the information security team says that the biggest risks at the moment are third-party risks. Even within a unit there can be a great difference in what management and an operational team are thinking about how well we are dealing with third-party risks.” [FC8]

4.1.3 Risk factors related to technology and service provision

Technology and service provision emerged as a major context of risk related to the focal company's procurement of IT services. Generally, it represents service-specific risk factors that may directly affect the availability and overall quality of service operations from the internal-user or customer perspective. Because the provision of IT services is technology-based, most of the identified risk factors represent technological challenges that should be considered during the procurement process:

“Respectively, if information technology is not working, as we discussed, if availability risk is realised, then we do not have business operations during that time.” [FC4]

The focal company emphasised that, due to the nature of IT services, most risk factors related to service provision are concerned with information security and the availability of services to internal users or customers. This means that the degree of information security of service providers and the services themselves should be assured continuously during all stages of the procurement process. Moreover, we observed that the interdependency of service assets, that is, multiple IT service assets or stakeholders interacting with each other during service operations, manifests as a possible source of disruptions and needs to be managed. Consideration of the vulnerabilities of actors in the service supply chain that contribute to the service process is therefore necessary for the focal company:

“Risks that are related to the continuity of our business operations are central. Through this, information security-related risks are manifested, and it is essential to ensure information security in our purchases.” [FC3]

“Our operations may come to a halt, for example, if a single SaaS application falls, or we can be affected by other things, such as a team [related to service production] that operates in Ukraine.” [FC4]

Information security as a source of risk was also highlighted by the focal company's need to minimise user errors that may lead to information security breaches. As such, the focal company's service providers were required to pay attention to safety and functionality

design during IT service use while also keeping their own information security intact. Similar considerations must be made for the degree of duty separation; it was found necessary to maintain a sufficient separation of system-level administrative privileges in the service supply chain. This included limiting the access of service providers and other third parties to reduce conflicts of interest and breaches of sensitive information or the service infrastructure. Efforts to ensure distinct duties also display the potential vulnerabilities caused by the interdependencies of actors in the focal company's service processes:

“An average organisation can be breached just by deceiving the end-user. In the big picture, probably 90% of cyberattacks are initiated through an email [with malware] to an employee, which results in stolen privileges and logins [...] I know other companies where service providers have been breached quite extensively, through which their customers have been compromised.” [FC5]

“The entire [service] environment has to be designed in such a way that when one or two assets end up in the control of hostile parties, it must not cause a snowball effect that collapses [the entire service infrastructure] [...] We only facilitate privileges for service providers that they genuinely need.” [FC5]

The focal company noted that, by buying IT services, they cannot simultaneously outsource their risk management. It is expected that risks are proactively managed through collaborative activities during service provision. Therefore, a lack of collaboration with service providers may specifically manifest as the inability to manage risks and disruptions during service provision:

“I think it is important to look at it from the perspective of the customer. They don't care if IT-system disruptions are taking place at our company or within the service provider. For the customer, it nevertheless manifests as a disruption. By sourcing [IT services], one cannot escape responsibility, which brings us to the importance of collaboration. Even if we are operating as two independent companies, we have to act as one. It involves all kinds of openness, teamwork, etc. [...] and this is visible when managing disruptions.” [FC10]

4.2 Risk management practices during the procurement process for IT services

Based on the results, risk management practices have a critical role during the focal company's procurement process for IT services. We found evidence of both internal and external practices that contribute to managing risks. Based on the analysis, we aggregated the findings into five clusters of practices and emergent findings. The practices include dedicated routines related to identifying, assessing, mitigating, and monitoring risks and collaborating in risk management. The emergent findings represent factors that support the effectiveness of the focal company's risk management practices; however, they are not included in the structured analysis. A supplementary table summarising the empirical findings is presented in Appendix 2.

4.2.1 Identifying and assessing risks

We found evidence that the focal company has implemented routines to understand and identify the types of risks associated with procuring IT services, particularly during the early stages of the service procurement process. It was considered an important practice

because it establishes the basis for subsequent risk management practices and is the first phase of evaluating risk factors related to the focal company's service procurement:

“Overall, almost all risk dimensions [are relevant] [...] Actually, we cannot exclude any type of risk when we are attempting to identify them, that is, how relevant it could be for a specific purchase and how it will be managed.” [FC7]

Essentially, the focal company's routines to identify risks were used to determine the different sources of risk related to the procurement of IT services. We found that these routines were mostly aimed at identifying vulnerabilities related to the service provider, the service itself, and regulatory compliance. For example, the primary focus of the focal company was to understand business and operational risks related to their service providers, as the focal company is dependent on their sustained capability to provide the required services. Apart from the service providers, the focal company recognised that it is essential to also consider risks associated with service integration, which requires identifying interdependencies between service assets and the capacity of the service provider and the focal company to achieve service integration during the service procurement process. Particularly in large service arrangements, identifying service supply chain or subcontractor risks was also considered a necessary routine in the focal company, because it improves the visibility of risk factors beyond the first tier of service providers:

“Related to outsourcing of important services, we attempt to identify risks related to sub-contractors or sub-service providers, and the service provider must have our approval in sub-service provider switches. By doing this, [we] attempt to control the entire service supply chain risk.” [FC7]

We found that a key routine related to identifying risks in the focal company is leveraging internal and external expertise to evaluate potential risk factors prior to procurement decisions. These routines were also partly integrated with assessing risks. For example, the focal company stated that establishing cross-functional risk reviews in the presence of internal experts supports the early identification of potential vulnerabilities regarding the service provider or IT service itself. It should be noted that the procurement department may be only one of the internal stakeholders supporting the identification of risks during the process. This highlights the importance of implementing mechanisms for internal collaboration during service procurement processes, because some service-specific risk factors may only be identified by subject-matter experts, such as IT experts in the focal company. In some instances, it was indicated that identifying risks could be further supported by external experts, such as consultancies, which provide independent evaluation and validation of service provider and service integration risks and can provide legal assurances. Leveraging external expertise was considered especially important when the focal company does not possess internal knowledge or have access to the service provider's expertise or when the IT service is otherwise critical for business activities. By using external evaluators during the service procurement process, the focal company may further reduce uncertainty related to the service specifications and validate the capabilities of the potential service providers, especially for long-term service provision:

“When needed, we also utilise external specialists [to analyse risks], particularly in larger service purchases and especially if we are less experienced [with the potential technology services to be purchased] [...] If we are talking about small-scale

[purchases], our own experts are surely capable of analysing the technology, but, with larger matters, we usually require specialists who may not be found in-house.” [FC10]

The results showed that the focal company’s routines for identifying risks are largely integrated with risk assessments. The practice of assessing risks is distinguished by routines associated with the technical evaluation of risk factors. It was considered an operational standard during the focal company’s service procurement process that supports decision-making related to service procurement and understanding the requisites for mitigating risks:

“Moreover, we have a procedural guideline for operational risk management, which provides instruction on risk assessments [...] According to these guidelines, all new outsourcing arrangements require the assessment of risk. What it actually is in practice: business units identify, assess, evaluate, and document risks related to the service purchase and determine their severity and possible mitigation actions. In addition, independent functions support these assessments [...] and, in the end we create a risk statement where the risks are described and the risk levels are evaluated.” [FC6]

A principal routine at the focal company is to subject the identified risk factors to quantitative and qualitative evaluations, often involving multiple internal stakeholders. Risk assessment routines are used to establish risk levels (i.e., estimated probability and impact), which indicate the relative significance of the observed risk factors related to the service purchase. As such, understanding risk levels further supports the focal company’s decision-making and resource allocation for mitigating service-related risks; this can be relevant, for example, when specifying services, selecting service providers, and designing the service process. Moreover, the focal company’s risk assessment routines include the evaluation of residual risks, which is relevant in understanding the remaining risk levels associated with service purchases after risk mitigation measures have been implemented. Interestingly, we also found that diversifying risk assessments is crucial in ensuring the objectivity of risk levels and further validating the holistic risk profile of service purchases. Diversification in this instance refers to internal stakeholders that independently produce evaluations about risks, which are subsequently considered in a holistic risk review. The stakeholder perspectives include, for example, the internal clients, the procurement or risk management function, and the internal audit. Overall, assessing risks is considered a significant practice at the focal company because it may also lead to the decision to discontinue the service procurement process if the perceived risk levels are too high:

“For identified risks, we evaluate the residual risk levels, which are reported to top management, who either accept them or decide that they need to be controlled to reduce the risk level.” [FC6]

4.2.2 *Mitigating risks*

The focal company distinguished risk mitigation as one of the key practices during the service procurement process. It represents the operationalisation of actions that reduce risk levels, that is, lessen the frequency and impact of service disruptions:

“We absolutely need the capability to implement the agreed-upon and defined risk-mitigation actions. It is fundamentally important to concretely decrease the level of a risk.” [FC6]

Due to the inherent difficulties in defining tangible outcomes for purchased services, the significance of negotiating and managing contracts is explicit in mitigating risks for the focal company. For example, negotiation skills were recognised to assist in communicating demands or change requests related to the service specifications or activities of the service provider itself. In contrast to contracts, negotiating represents an informal routine for mitigating risks by interacting with the service provider. Without proper negotiation capabilities, the focal company might not be able to communicate risk management expectations to the service provider or guarantee a resolution to conflicts during contract formation with the service provider, which might considerably slow down the service procurement process. In relation to this, the focal company underlined that contracting is one of the main risk mitigation routines during the procurement process. By entering into a contract, the focal company attempts to formally assure a mutual understanding of service definitions, set expectations for service delivery, and prevent opportunistic behaviour of the service provider. In addition to service-level agreements, the focal company considered the inclusion of clauses to specify risk management tasks for the service provider an essential risk mitigation routine:

“Now that we think about this, we negotiate a lot, we resolve many heated situations that have big financial implications. We have examples where we have mitigated financial risks and their other effects through good knowledge of contracts, good negotiation skills, and good collaboration with our internal customers.” [FC3]

The focal company emphasised that establishing governance to facilitate regular risk management tasks with service providers is a key part of mitigating risks during their service procurement process. Notably, developing governance enables action plans for regular and bilateral communication about risks and needs for risk mitigation during the service provision. It is an administrative mechanism that supports risk management by priming collaboration during service provision. The focal company’s representatives indicated that proactively established governance with service providers is an especially important practice for solving unanticipated challenges related to service provision and effectively facilitating service disruption recovery during service operations:

“For important service providers, a lot stems from the contracts and negotiations, what requirements are on the table, and how well the service providers understand our industry. [We often spend time on explaining] why we need something specific, because there is quite a lot. And we need to create a common understanding about the required indicators, things that have to be monitored as operational risks, and how often they are monitored. This is why we establish governance.” [FC1]

Moreover, contingency planning emerged as a central risk mitigation routine during the focal company’s procurement process. The purpose of contingency plans is to develop coordinated responses to service disruptions before they occur. The focal company continuously develops and proactively tests multiple types of contingency plans that relate to their procured IT services: business continuity plans, integration of service provider continuity plans, disaster recovery plans, and exit plans. The role of contingency plans was considered crucial because many of the IT services are critical to their primary

business processes and there can be major negative implications when switching to alternative service providers. It was highlighted that one criterion for selecting service providers is that they also have continuity plans, and they must be integrated to support the focal company's continuity plan. Such continuity plan integration implies a need for a high level of strategic collaboration and trust, which is also an indication of partnership qualities that the focal company seeks in its key service providers. Moreover, exit plans were considered another necessary aspect for managing risks of IT service procurement at the focal company, since they allow for ending the contractual relationship with the service provider or, if possible, transferring the service provision to another, more capable service provider. Overall, dedicated contingency planning is often also a legal requirement for the focal company:

“In a regulated industry such as ours, if the service purchase is considered significant enough, we must verify that the service provider's continuity plans are at an adequate level and that they support our own continuity plans; we also develop service recovery plans and exit plans in case the service provider suddenly cannot continue service provision.” [FC7]

“[To anticipate disruptions], we have information security-based requirements to monitor and manage continuity. But there are also policies for exit-planning, especially if we are talking about situations where we need to withdraw [the service]. As part of that, we need planning to retake control [...] so that we won't end up in a situation where we cannot reverse out of [the arrangement].” [FC5]

4.2.3 *Monitoring risks*

Monitoring risks was found to be a key practice for the focal company during the ex ante stage of service procurement. Essentially, risk monitoring routines were used to continuously collect risk information related to the focal company's service operations. Many of their risk-monitoring practices were automated due to the nature of IT service assets being digital. Similar to identifying risks, the focal company had implemented monitoring routines to target multiple sources of risk information, such as the service providers' financial and operational capabilities, service levels, or the development of identified service risk factors. The key distinction is that monitoring risks as a practice is designed to take place during service operations:

“Now that you brought up the operational perspective, we specifically monitor aspects related to service quality and [other] operational indicators; their risks are monitored, and, based on these, extensive reports are generated. The monitoring can be very detailed... [...] sometimes it can be a bit overkill, but our services cannot be turned off, so it is understandable.” [FC2]

“We must have the ability to facilitate service provider performance monitoring, so that it is continuous and regular, and not based on random occurrences.” [FC4]

One of the focal company's monitoring routines was to benchmark its technological maturity continuously. Monitoring technological maturity is also connected to decisions to adopt new technologies and purchase IT services. It was considered important for preventing information security and data protection vulnerabilities in provided services or the service supply chain itself:

“We utilise continuous maturity benchmarking, especially now that we are talking about IT, for example, we have a maturity model for monitoring and managing information security risks.” [FC3]

The focal company recognised the monitoring of known risks as an important routine. For example, the use of risk libraries was a standard procedure for continuously updating and sharing risk information that could become important to manage during service provision. While risk libraries were purposed as repositories, they also provided a standardised approach for identifying risks related to purchased services across the focal company’s organisation:

“We utilise an internally shared risk library, which includes standard risks, controls, causes and effects [...] Due to the reform of the risk library, we can now better identify risks related to outsourcing and service providers.” [FC6]

As part of risk monitoring, the focal company highlighted that formal communication of risk information to internal and external stakeholders through reporting enables more efficient risk management during the service procurement process. Internal risk reporting relates to the transfer of risk information to stakeholders of the service procurement agreement, such as risk owners, service provider contacts, and top management. The focal company considered the internal reporting of risks necessary for tracking the risk management activities performed by internal stakeholders. In addition, external risk reporting to regulatory agencies was considered another required activity. This improved the monitoring of regulatory compliance and also allowed feedback from institutional stakeholders who have a vested interest in managing systemic risks in the industry:

“We have a precise procedure for risk monitoring. We report all risk events centrally through our system and also follow what mitigation actions have been completed.” [FC10]

“We regularly share risk information to regulatory agencies, which have very strict risk reporting requirements.” [FC9]

4.2.4 Collaborating in risk management

A key finding that emerged during the analysis is that an effective service procurement strategy, particularly for services supporting primary business activities, requires risk management collaboration between the focal company and its service providers. This relates to the notion that effective service management ex post contract was considered to be enabled by the forming of a collaborative partnership between the focal company and its key service providers. A distinct feature of such partnership was the focal company’s requirement for the continuous interorganisational coordination of risk management during service provision. In practice, the focal company and their service providers pursued the collaborative management of service operations to maintain the availability and quality of IT services, which includes controlling risks and disruptions. From a risk management perspective, the collaborative approach also had a key role because it enabled the continuous development of capabilities, processes, and governance to increase the integration of risk management between the focal company and its service providers:

“Even though we work in two separate companies, we act as one during disruption events. I think this is still [the most important thing]; it is unnecessary to even highlight other notions. Together, we can solve the problem quickly. It doesn’t work at all if we begin fixing a problem on our own end without the service provider knowing what we are doing. Communication, openness, and teamwork is emphasised.” [FC10]

“Our customers give us clear requirements. For example, in the financial services industry, there is a clear demand for risk management from every direction. It feels as if it is growing; this is something that is being discussed more and more.” [SPB]

An integral aspect of collaborating in risk management is the effective identification, control, and recovery of service disruptions by the focal company and its service providers. To achieve this, the focal company and its service providers collaboratively implemented processes to resolve service incidents. Resolving incidents is an especially important routine for distinguishing and facilitating efficient recovery from major service disruptions and preventing the reoccurrence of repeated issues during service provision. Incidents affecting the performance of purchased IT services were also considered a regular occasion, which showcases the importance of this routine. As a part of collaboratively managing risks, the focal company also emphasised the importance of implementing communication protocols to support the service disruption recovery process. For example, it was seen as valuable to have reciprocally established disaster contact and communication channels or responsibility allocations:

“In many cases, important action points in [major incidents] are the review of communication processes and contact channels. In other words, we make sure that the service provider knows who to call in the middle of the night. We must also make sure that internal service management has reciprocal knowledge of service provider contacts.” [FC4]

“If a disruption affects a customer’s systems, then we will include the customer in the incident resolution process. Afterwards, we always review the disruption, what caused it, and what we must do to avoid repeating it. We always communicate and send reports about this to the customer.” [SPB]

Finally, the focal company and its service providers jointly developed contingency plans ready to be activated to control risks and disruptions during service operations. Although the collaborative development on and implementation of contingency plans is a necessary practice to manage risks, the focal company stated that it is also essential to proactively test and improve them in collaboration with the service providers. This can be achieved, for example, by arranging different types of stress tests or simulating disruption scenarios to better understand the effectiveness of contingency plans in recovering from service disruptions:

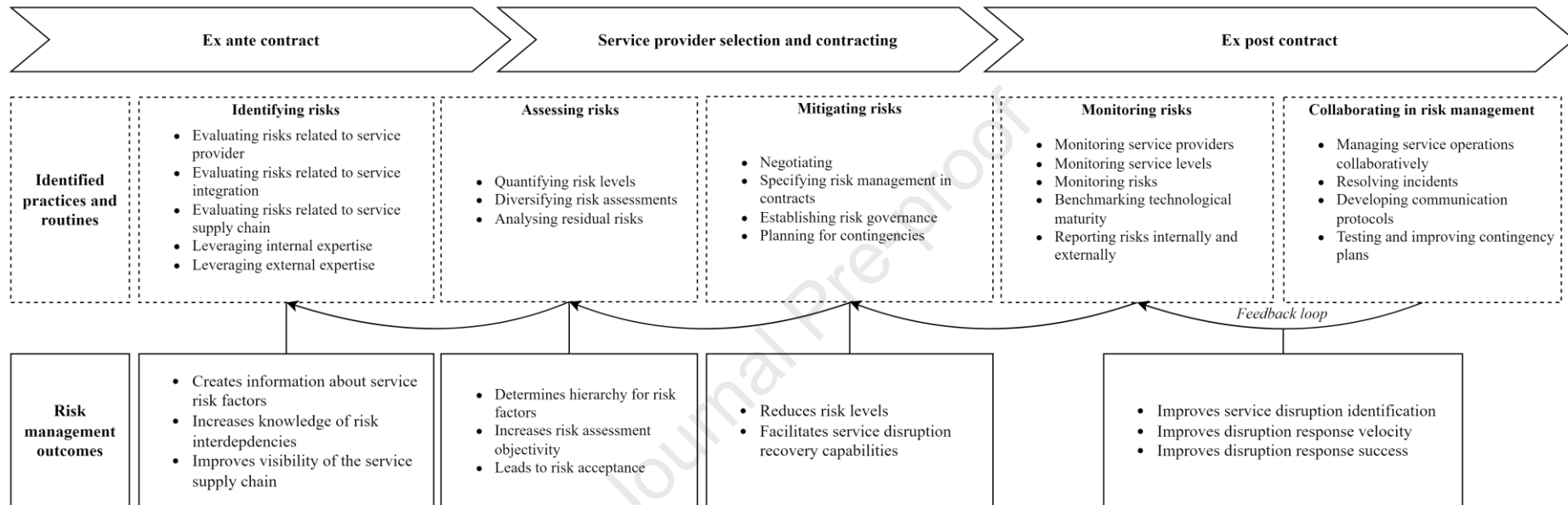
“As I mentioned earlier, managing continuity is an essential part of operational risk management. From our perspective, it is important that continuity management, continuity plans, and systems-related recovery plans are up to date. But it is also important to test and practice them in order to see potential deficiencies, things that don’t work in these contingency plans.” [FC6]

“If we have promised our customers that certain services are operational, then we think about how we can assure the continuity of operations [in the event of adverse circumstances], whether there is a pandemic or a storm in the area where our team is providing a service. Whatever the situation is, we need to have continuity plans and measures to continue service provision.” [SPA]

5. Discussion and conclusions

This study investigated the risks of service procurement and risk management practices that are applied during the focal company’s procurement process for IT services. First, we distinguished multiple risk factors and classified them into three contexts that reflect their sources. Furthermore, we documented the main routines within the focal company’s practices to either identify, assess, mitigate, and monitor risks or collaborate in risk management with service providers during the service procurement process. Overall, our findings indicate that, without explicit efforts to manage risk factors during the procurement process, services may become vulnerable to disruptions that reduce the availability or quality of service use. Based on the empirical findings and the theoretical background, propositions and an explorative framework (Figure 2) were created.

Figure 2: The role of risk management practices during the service procurement process



The findings indicate that the focal company's ability to manage the risks of IT service purchases is partly dependent on the implementation of structured risk management practices before service characteristics have been formally specified. This notion supports the general assumption that challenges with the procurement process for services are primarily reflected in the transaction characteristics of services and the buyer's capacity to understand and manage heightened levels of uncertainty related to them (Wynstra *et al.*, 2018). For example, the service buyer must avoid incomplete service specifications by investing resources into generating a detailed understanding of their service needs, which can then be communicated to the service providers (Ellram *et al.*, 2008; van der Valk and Rozemeijer, 2009). In line with these considerations, this study elaborates how the focal company implements routines to identify and assess risk factors during the early stages of the service procurement process. These risk management practices are found to produce important information about risks and their relative significance, which supports the focal company's ability to establish more complete service specifications *ex ante* contract. Thus, the following proposition is made:

P1: Risk management practices support the buyer's capacity to create sufficient IT service specifications.

Our study shows that the focal company's purchased IT services are susceptible to multiple risk factors arising from the service providers. Similarly, we found evidence of risk management practices that are purposed to evaluate and validate the holistic risk profile of service providers prior to purchasing decisions. These findings are related to the notion that it is often important for the buyer organisation to screen service providers and assure their capabilities before formal service arrangements are made, especially when the service purchase is strategically significant (Pemer and Skjølsvik, 2019). The findings show how the focal company's structured risk management practices play an enabling role in not only evaluating the service provider's capacity to fulfil service needs but also in managing disruptions prior to selection. Thus, we propose the following:

P2: Risk management practices support the buyer's capacity to select IT service providers.

We found evidence that the focal company's risk management practices influence the implementation of governance for service providers, which is regarded as one of the buyer organisation's main mechanisms for controlling service risks (Ellram *et al.*, 2008). The results show that risk management practices not only help in establishing needs for specific activities but also ensure compliance with such requirements. For example, the focal company implements specific contractual clauses based on assessed risks, assures integrated contingency planning, and proactively communicates requirements for collaborative risk management activities before IT services are provisioned. These findings also elaborate the importance of effective risk management practices in managing uncertainty related to the procurement of services, which affects the buyer's capacity to design governance for contractual and relational elements during service provision (Wynstra *et al.*, 2018). Therefore, we suggest the following:

P3: Risk management practices support the buyer's capacity to establish optimal governance for IT service provision.

A key finding of this study relates to the role of the focal company's internal and collaborative risk management practices, which together enable a proactive management of service disruptions during IT service delivery. Such activities were found to be related to the monitoring of risk factors and the performance of service providers. Moreover, collaborative activities aimed at resolving incidents and developing contingency plans were considered essential by the focal company and its service providers. The results further elaborate how the buyer organisation can improve the performance monitoring of services (Ellram *et al.* 2008; Molin and Åge, 2017) by implementing risk management practices. Also, in line with Gelderman *et al.* (2015), the findings regarding collaborative risk management activities illustrate the interactive nature of service processes and the collaborative capabilities required to operate purchased IT services. Our study suggests that the absence of collaborative risk management practices could lead the buyer organisation to not adequately monitor the service process nor react effectively to service disruptions. Therefore, we propose:

P4: Risk management practices support the buyer's capacity to monitor and maintain IT service performance.

Based on the theoretical background and previously elaborated findings, the relationship between the focal company's risk management practices and service performance becomes explicit. First, we found evidence of how risk management practices during the IT service procurement process can be used to proactively prevent risks and disruptions or facilitate performance recovery post disruption. Risks can be avoided, for example, by evaluating risk factors related to the service purchase before committing to a contract. Similarly, activities such as contingency planning and resolving incidents are examples of diminishing and recovering from service disruptions. Moreover, this study identified at least four instances in which the focal company's risk management practices support the service procurement process and contribute to the performance of purchased IT services: (1) by improving service specifications; (2) by supporting service provider selection; (3) by supporting the design of governance for service provision; and (4) by supporting the monitoring and maintenance of service performance.

Although the implementation of practices to manage risks during the service procurement process is considered essential, the PBV suggests that there can be several moderating factors that may influence the effectiveness of such practices, potentially further explaining their relationship with service performance (Bromiley and Rau, 2014). Based on this assumption, some of the moderation between risk management practices and service performance is accounted by the risk factors that emerged in this research. Essentially, it is implied that IT service purchases can be composed of unique risk profiles and different exposures to risk. Similarly, the absence of severe risks should explain why the buyer's risk management practices may not have the desired effect on service performance. Importantly, this distinction may be helpful in further identifying the conditions in which risk management practices are more or less effective for the buyer organisation. Based on this, we propose the following:

P5a: Risk management practices during the procurement process increase IT service performance.

P5b: Risk factors moderate the relationship between risk management practices and IT service performance.

5.1 Theoretical implications

This study extends the previous service procurement literature (Luzzini *et al.*, 2014; Wynstra *et al.*, 2018) by emphasising the IT service procurement process as a unique context for understanding risk management practices and their outcomes. The results contribute by answering calls for further research on risk management during service procurement processes (Ellram *et al.*, 2008; Wynstra *et al.*, 2015) and advance the knowledge on the importance of risk management in service procurement. By adopting the PBV as a theoretical background, this study provides three important contributions that build on prior research.

First, the investigation of the focal company's risk factors reinforces notions from prior research and provides novel insights about risk in the service procurement context. Particularly, this study offers a more detailed typology for risk factors in comparison to prior literature and extends the understanding of risk related to purchased services. In relation to prior studies, this study supports the notion that risk factors arising from the service provider should be a major consideration during the procurement process (Ellram *et al.*, 2008; Selviaridis and Norrman, 2014). Moreover, the results highlight that challenges in internal processes and governance can be important sources of risk. These findings particularly expand the research by Ellram *et al.* (2007), who found that flawed processes and a lack of supply management participation might induce risks for the service buyer. Our study also considered risk factors during the focal company's service provision. Although the risk factors related to service provision may be considered specific to the focal company and its service operations, some findings still resonate with notions from prior research. For example, Wynstra *et al.* (2015) and Sengupta *et al.* (2022) consider the increased complexity related to the configuration of service provision relationships as a source of risk. The challenges associated with the interdependency of service assets, as observed in this study, should increase this complexity even more in such relationships. We also found that a lack of collaboration with the service providers to manage disruptions is considered a prominent risk factor for the focal company; multiple studies support this notion, such as van der Valk and Rozemeijer (2009), Grudinski *et al.* (2014) and Gelderman *et al.* (2015), who regard the lack of trust and collaboration as a potential problem during the service process.

Second, this study makes a novel contribution by elaborating on the relationship between risk management practices and the service procurement process. Existing studies identify many practices (Table 2) but do not focus on the buyer's structured efforts to manage risks of service purchases; therefore, discussions about risk management have remained implicit. Our findings show that risk management practices may have a key role in supporting the buyer's capacity to effectively buy services. For example, practices for identifying and assessing service risk factors support the focal company's capacity to specify services more accurately, which has been considered crucial in prior research (van der Valk *et al.*, 2009). Similarly, we found that the focal company's risk management practices are related to enhancing the screening and selecting of service providers. This finding aligns with prior research by further elaborating the relationship between risk assessment practices and screening service providers to improve quality (Zsidisin *et al.*, 2000; Perner and Skjølsvik, 2019). Moreover, prior research has established that contractual governance is one of the primary mechanisms for increasing control and managing risks during the procurement process (Ellram *et al.*, 2008). The findings of this study exemplify how risk management practices result in supporting contractual governance, for example, by using information about risks to augment contract clauses and exclusively specifying risk management tasks. We found, however, that the focal company's risk management practices are also related to improving relational

governance, which has been identified as another key aspect in service procurement (Gelderman *et al.*, 2015). For example, the focal company implements risk governance with their service providers to facilitate risk monitoring and maintain close relationships to collaborate in risk management during service provision. This finding also supports the notion that risk management may be an interactively developed capability in buyer–service provider dyads (Raddats *et al.*, 2017). This study also suggests that contingency planning can be a key routine during the service procurement process. Interestingly, the identified practices indicate that fast and effective service performance recovery is a necessity for the focal company, highlighting the importance of developing collaborative practices and capabilities to increase the resilience of purchased services (Sheffi and Rice, 2005; Battaglia *et al.*, 2012). Prior research has also touched upon the subject by discussing the dissolving of service contracts, internalising activities (Ellram *et al.*, 2008), and governance for incident resolution (Akkermans *et al.*, 2019) as important measures. Therefore, the findings of this study further elaborate how effective strategies related to managing the continuity of services and proactively preparing for service failures can be facilitated during the procurement process.

Third, this study contributes by being one of the first to elaborate the conditions in which the implementation of risk management practices may influence the performance of purchased services, as outlined in the PBV (Bromiley and Rau, 2014). Although studies have already investigated key strategies related to improving service performance (Ellram *et al.*, 2008; Akkermans *et al.*, 2019), the literature lacks specific discussion from the risk management perspective. In line with the theory elaboration approach (Ketokivi and Choi, 2014; Fisher and Aguinis, 2017), this study provides a detailed account of practices and routines related to risk management during the service procurement process. We also explored the structural and recursive relationships between practice implementation, the service procurement process, and improved service performance (Fisher and Aguinis, 2017). In combination, the findings, along with the research propositions, expand the prior literature by offering a more nuanced understanding of how the buyer organisation may improve service performance through the implementation of risk management practices.

5.2 Managerial implications

The results of this study clarify the importance of implementing risk management practices to increase the performance of purchased services. The practices and routines discussed in this study are argued to be protected by weak or non-existent isolating mechanisms, which means that companies should integrate most of them during the procurement process. The findings provide several examples of operational practices that improve the management of risks and disruptions related to service purchases. The results may prove to be particularly useful for companies that aim to purchase IT services; however, the generic nature of the investigated practices implies applicability to other types of services as well. Moreover, this study exemplifies the sequential relationships between operational risk management practices, which can be useful when companies are planning their implementation to support the service procurement process. The findings also underline the role of ex post collaboration to reduce service disruptions and maintain service performance. These notions support practitioners' understanding of the requirements for a high degree of risk management maturity in service procurement, which may be required for strategically important service purchases.

The discovered risk factors can be valuable for practitioners in understanding the type of risk information that is essential to identify during the service procurement process. Managers may also adopt a more structured approach to classifying risk factors, as

suggested in this study. The emergent findings addressing the factors that may support managing risks (Appendix 2) may benefit purchasing and supply chain managers and risk management experts in understanding the elements related to effective risk management during the service procurement process. This can guide the development of risk management strategy and governance for service purchases.

It should be highlighted that the procurement of IT services is generally related to the acquisition of digital service assets. As discussed in the study, some of these assets, such as digital systems or software-based solutions, can be purchased to support business operations. Therefore, the results of this study also offer valuable insights regarding practices for managing the risks of service purchases that support an organisation's digitalisation strategy. It can thus be suggested that if IT services are purchased to enable digitalisation, practices to manage risk should be implemented accordingly to avoid increases in cost or failures in technology-based systems.

5.3 Limitations and future research directions

As in most case research, generalisation of the results might not be possible due to the in-depth case study design adopted. Thus, further longitudinal and cross-sectional studies on service procurement with risk management perspectives could be done to achieve a better understanding of the topic.

It is worth mentioning that the use of the PBV in this study does not extend to analysing firm performance but rather limits theorising to service performance as an intermediate performance outcome. Although a positive relationship between the performance of purchased services and the buyer organisation could be implicitly argued, further research can develop the theory by investigating the explicit conditions in which firm performance is related to managing risks of outsourced services. The explorative approach of this qualitative research also implies that we are unable to accurately evaluate the relationship of independent or combined practices with service performance; instead, the findings made in the study further specify and elaborate the theoretical relationships between the identified constructs (Fisher and Aguinis, 2017). Further studies may mitigate this problem by, for example, having a larger sample. It could be expected that, in some circumstances, a heavy emphasis on risk management practices has downsides, such as inflexibility in contracts, over-specified services, or a lack of interest from potential service providers. Future research could aim to understand the circumstances in which the buyer's increased effort to manage risks instead has a negative effect on the performance of services, and, as a result, elaborate more precisely on the conditions in which risk management should not be overtly pursued.

Moreover, the results of the study represent the perspective of service procurement in the financial sector, in which IT services majorly contribute to the value of total assets and the degree of risk management for service purchases is influenced by regulation. Future research conducted in settings where industry-specific characteristics or regulatory influences hold less influence may conclude differently, and, thus, further research should investigate different industries and types of services. Future research on risk management for service purchases could also adopt a more specific method to classify the services (Wynstra *et al.*, 2006) and investigate the potential role of risk management practices when compared with different service classifications. This study also suggested that risk management practices during the service procurement process are related to the resilience of services; this should be expanded both conceptually and empirically with dedicated research designs to advance knowledge about managing service disruptions. Future research should also conduct investigations into the role of risk management practices in supporting the systemic purchasing of service bundles to extend the understanding of

supply management practices for integrating multiple services to support business activities (Hallikas *et al.*, 2014). Despite these limitations, our findings establish a foundation upon which future research can build to achieve a more holistic understanding of risk management in service procurement.

Journal Pre-proof

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Appendix 1: Interview guideline

Background information

1. What kind of procurement organization does your company have?
2. How are the company's procurement strategies and policies defined? Who defines them?
3. What is the role of IT service procurement in your company and service production?
4. What kind of IT service provider base does your company have? How many suppliers and product categories are there?

Risk identification and assessment

1. What are the most significant risks you have in your ICT services value chain?
2. What are the ESG risks associated with ICT value chains?
3. Could you give examples of disruptions that have already occurred to you or happens typically within your industry [regarding ICT services]?
4. What are the methods or practices for identifying and assessing risks?
5. How is risk information shared between internal and external stakeholders?

Risk mitigation and monitoring

1. What expectations do different stakeholder groups have about risk management or practices related to it?
2. What risk management practices do you currently have in place?
3. Do you know what risk management procedures or practices your suppliers (or other external stakeholders) are performing?
4. What kind of tools or automation can be considered useful in supporting risk management?
5. How can you monitor managed and potentially reoccurring risks and residual risks?

Service disruption management

1. Could you give examples on how disruptions have been mitigated or completely avoided?
2. What are the factors that affect recovering from disruptions as efficiently as possible?
3. How can you utilize disruptions to develop outsourcing processes or operations?
4. Do you have any practices, tools or early-warning systems that predict disruptions or errors?

Appendix 2: Data coding and representative quotes

Risk management practices	Routines	Description	Representative quote from interviews
Identifying risks	Evaluating risks related to service provider	Identification of business and operational vulnerabilities related to the service provider	“When we are selecting the service provider, we identify risks by conducting background checks and examining their business, i.e., what types of risks are associated with the service provider's business.” [FC7]
	Evaluating risks related to service integration	Identification of risk interdependencies when services are integrated into existing service infrastructure	“We cannot assume that the service provider is the beginning of all risks, we must also achieve many tasks on our end to assess [internal risks]. For example, the ability to achieve service integration on schedule is a very typical issue.” [FC10]
	Evaluating risks related to service supply chain	Identification of upstream service supply chain risks and implementation of governance that incentivises service providers and sub-contractors to be aware of potential service disruption propagation towards service user	“Related to the outsourcing of important services, we attempt to identify risks related to sub-contractors or sub-service providers, and the service provider must have our approval in sub-service provider switches, and, by doing this, [we] attempt to control the entire service supply chain risk.” [FC7]
	Leveraging internal expertise	Facilitation of cross-functional collaboration with internal stakeholders to identify risks of service procurement	“When initiating purchase of important services, we have a mechanism for collaborating internally in which all internal stakeholders who support operations gather to review the risk themes [related to the service purchase].” [FC3]
	Leveraging external expertise	Utilisation of external experts to enhance risk identification related to service procurement	“When needed, we also utilise external specialists [to analyse risks], particularly in larger service purchases and especially if we are less experienced [with the potential technology services to be purchased] [...] If we are talking about small-scale [purchases], our own experts are surely capable of analysing the technology, but, with larger matters, we usually require specialists who may not be found in-house.” [FC10]
Assessing risks	Quantifying risk levels	Estimation of probability and impact of identified risks related to service procurement	“It is essential to evaluate risk events [related to service purchases] by assessing probabilities and what types of impacts the risks may have.” [FC5]
	Diversifying risk assessments	Facilitation of independent risk assessment by cross-functional stakeholders to allow for comparisons and increase objectivity about risks prior to purchasing decisions	“Stakeholders who are responsible for operational business activities are required to own, manage and report about identified risks. There is an independent function to develop and implement risk management principles and procedures, [and those with such a role] also survey risks independently and report to top management. Finally, we have the internal audit, who evaluates risks between all internal stakeholders.” [FC6]
	Analysing residual risks	Estimation of the relevance of remaining risk levels after risk mitigation controls have been implemented	“For identified risks, we evaluate the residual risk level, which are reported to top management, who either accept them or decide that they need to be controlled to reduce the risk level.” [FC6]
Mitigating risks	Negotiating	Development of negotiation capabilities in the service procurement function and ensuring coordination with internal customers during the negotiations process to reduce risks	“Now that we think about this, we negotiate a lot, we resolve many heated situations that have big financial implications. We have examples where we have mitigated financial risks and their other effects through good knowledge of contracts, good negotiation skills, and good collaboration with our internal customers.” [FC3]
	Specifying risk management in contracts	Implementation of contract clauses that enhance mitigation of risks related to the service purchase or require risk management practices from service providers	“We evaluate the risk themes of the service purchase and assess what these mean for the specifications communicated to the service provider, which are then required in the contract.” [FC7]
	Planning for contingencies	Proactive development of several types of integrated contingency plans internally and	“In a regulated industry such as ours, if the service purchase is considered significant enough, we must verify that the service provider's continuity plans are at an adequate

		externally with service providers that prepare for service disruption recovery or the reconfiguration of service management processes	level and that they support our own continuity plans; we also develop service recovery plans and exit plans in case the service provider suddenly cannot continue service provision.” [FC7]
	Establishing risk governance	Implementing service provider governance to ensure regular and continuous risk management tasks and appropriate reactions to unexpected circumstances during service provision	“Governance between our service providers is one of the most essential [parts of risk mitigation] so that we can actively manage day-to-day challenges as they come up. When I say service provider governance, it means goal-oriented, clear, and well-managed collaboration with our service providers.” [FC3]
	Monitoring service providers	Implementation of monitoring controls that continuously measure performance of the service provider	“We must have the ability to facilitate service provider performance monitoring so that it is continuous and regular and not based on random occurrences.” [FC4]
	Monitoring service levels	Implementation of monitoring controls that continuously evaluate service levels and automate monitoring of digital service assets	“Of course we monitor service levels, which is done case-by-case. If it is an IT-system, we monitor its service level all the time and there are warning indicators in case of malfunctions. There is a lot of automation.” [FC10]
Monitoring risks	Monitoring risks	Implementation of monitoring controls that continuously keep track of identified risks and integrate emergent risk information to support decision-making	“Internally, we have risk libraries, which are continuously updated by utilising threat information that is available.” [FC5]
	Benchmarking technological maturity	Regular benchmarking and development of technological maturity related to IT-service management and risk monitoring	“We utilise continuous maturity benchmarking, especially now that we are talking about IT, for example, we have a maturity model for monitoring and managing information security risks.” [FC3]
	Reporting risks internally and externally	Implementation of processes that allow for the sharing of risk information to internal and external stakeholders	“We regularly share risk information to regulatory agencies, which have very strict risk reporting requirements.” [FC9]
	Managing service operations collaboratively	Development of capabilities, processes or governance that increase collaboration with service providers to allow for more integrated risk management during service provision	“I think it is important to look at it from the perspective of the customer. They don’t care if IT-system disruptions are taking place at our company or within the service provider. For the customer, it nevertheless manifests as a disruption. By sourcing [IT services], one cannot escape responsibility, which brings us to the importance of collaboration. Even if we are operating as two independent companies, we have to act as one. It involves all kinds of openness, teamwork, etc. [...] and this is visible when managing disruptions.” [FC10]
Collaborating in risk management	Resolving incidents	Implementation of service disruption management processes to enhance collaborative IT-service disruption identification and understanding of the disruption scale, problem resolution and performance recovery	“Our contract templates have direct specifications for basic IT-service production processes used in ITIL, such as incident and problem management, which also necessitate identifying and managing repeated problems [during service provision].” [FC4]
	Developing communication protocols	Proactive implementation of communication channels and contacts with the service provider to ensure rapid information-sharing and high visibility during service disruptions	“In many cases, important action points in [major incidents related to service performance] are reviewing communication processes and contact channels. In other words, we make sure that the service provider knows who to call in the middle of the night. We must also make sure that internal service management has reciprocal knowledge of service provider contacts.” [FC4]
	Testing and improving contingency plans	Testing and operationalisation of service disruption contingency plans in collaboration with service providers and continuous development of these plans based on feedback	“As I mentioned earlier, managing continuity is an essential part of operational risk management. From our perspective, it is important that continuity management, continuity plans, and systems-related recovery plans are up to date. But it is also important to test and practice them in order to see potential deficiencies, things that don’t work in these contingency plans.” [FC6]

Supporting factors	Internal risk management governance	Systematic development and implementation of risk management strategy and internal governance to integrate roles, responsibilities, and risk management practices and coordinate operational risk management tasks related to service procurement	“We need to ensure that the terminology and risk management responsibilities between different stakeholders are clear and commonly understood—what the procurement is doing, what risk management is doing, what internal clients are doing—so that we have an integrated perception of our risk management. This is, in my opinion, central to it all.” [FC4]
	Risk management culture	Ensuring that risk management is perceived as a necessary and beneficial part of service procurement by internal stakeholders. Specifically encouraging an openness to disclose risk information of any kind to allow for transparent risk assessment, and subsequently, the operationalisation of risk mitigation strategies	“I would condense [risk management performance] to risk management culture, which is related to many things. A good risk management culture ensures that business units have a genuine interest in identifying risks that affect their operations and stop them from achieving their goals [...] In summary, risk management culture is about open discussions of risks internally, reporting to top management, and joint-decision making with top management; these play a key role.” [FC6]
	Preferred service provider selection criteria	Proactive formulation of criteria to evaluate the service provider's risk management capabilities to fulfil defined service needs and capacity to manage disruptions during service provision	“For example, for information security, there are standard requirements that our service providers must meet. It is not directly risk management or service procurement, but implicitly we want to make sure that certain things are in order. We also need to know what risks the service provider has and be assured that they have existing controls for it.” [FC5]
	IT-systems	Implementation of management information systems to collect, store, and manage risk-related data to support information sharing and operational risk management tasks	“To solve some of the challenges related to our risk management, we have acquired a risk management system [...] which will considerably improve our technical capabilities in operational risk management tasks.” [FC6]
	External data sources	Acquisition of independently produced third party data that originates from outside the partnership to support risk identification and monitoring	“If we look into the future, when automation and new types of tools might improve our risk management, it is the data that our risk management is based on, data from different service supply chain partners. What is considerably less leveraged is independently produced external data, which can be analysed for our benefit. External data is related to hidden risk signals that are not explicitly discovered through the governance with our service providers, to observe specific risks that we need to prepare for. In that sense, I see that leveraging external data would be of great benefit [for risk management purposes].” [FC6]
	Disruptive learning triggers	Implementing feedback loops in disruption recovery processes to continuously improve existing risk and disruption management practices related to service procurement	“Fast feedback-loops and continuous improvement on smaller issues are part of our most important contracts. Our mindset has developed into thinking that disruptions are opportunities for learning, and we can beneficially channel them into our operations.” [FC3]

The role of risk management practices in IT service procurement: A case study from the financial services industry

- Investigates risks and risk management practices in the service procurement context
- Provides a typology for risk factors related to purchased IT services
- Presents a framework for risk management during the service procurement process
- Illustrates how risk management practices support service procurement
- Elaborates how practices are related to increased service performance

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