

A close-up photograph of a hand reaching out towards a bright sunset. The sun is low on the horizon, creating a strong lens flare and casting a warm, golden glow over the scene. The background shows a blurred cityscape with buildings and lights, suggesting an urban setting. The hand is the central focus, with fingers slightly spread, reaching towards the light. The overall mood is one of aspiration and reaching for something new.

# Innovation through outsourcing paradox

How can it be managed?

# Innovation through outsourcing paradox

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A Master's thesis for the degree of Business Administration  
Digital Business

By

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## **Abstract**

Innovation is seen as a key driver for long-term competitiveness while outsourcing contracts seem to limit innovation. When firms try to obtain innovation in outsourcing, a paradox can be identified. Innovation in Information Technology (IT) Outsourcing (ITO) has received limited attention in previous research. This research is one of the first practical investigations to understand the innovation through outsourcing paradox. The study uses a combination of literature and plural case studies. A retrospective approach is adopted with the investigation of three case studies using interviews and analysis of documentation. Interviews were conducted with executives from large companies and their outsourcing suppliers, each in a different sector. Interviewees were asked to share their perceptions of all-important aspects of the outsourcing context. Interconnections of the cross-case analysis were made among four mechanisms: dual formal reviews, level of innovation focus with governance, dynamic decision making & extreme contracting, and ambidexterity in organizations. Based on these mechanisms, the possibility to manage innovation in IT outsourcing is discussed. Confrontation and complexities with existing literature is examined. Furthermore, implications for theories and practice, and future research avenues are described.

## **Keywords**

Qualitative research, Innovation, Outsourcing, Information Technology Outsourcing, Paradox, Case study

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# **1. Introduction**

## **1.1 Problem background**

The IT outsourcing industry is set for a new challenge, meaning going beyond cost saving and understanding how innovation can be delivered from outsourcing their IT services. Lately, innovation has become a one of the most important items on the agenda of many companies and their CIOs, since it enables firms to survive in the long-term and to remain competitive (Aubert, Kishore, & Iriyama, 2015; Camisón & Villar-López, 2014; Chesbrough & Teece, 2002; Dutta, 2015; Polansky, Inuganti, & Wiggins, 2004; Rosenbusch, Brinckmann, & Bausch, 2011).

Nowadays, companies look for sources of innovation with their outsourcing partners and suppliers (Oshri, Kotlarsky, & Gerbasi, 2015a), since this increases its knowledge and expertise. There is a trend within outsourcing relationships to become increasingly managed and leveraged as strategic assets. Companies are looking for innovation, business ideas, and added value from their outsourcing suppliers with a focus on business, not just technical solutions. However, with almost all types of outsourcing, cost reduction is one of the most important goals in a companies' outsourcing strategy. Hardly any research is focused on innovation through outsourcing and little attention is given to the practicalities involved in the contractual and innovation aspects of outsourcing. This research gap and all these challenges within IT outsourcing led to the development of this thesis.

## **1.2 Innovation outsourcing paradox**

Innovation, and how it is managed, is seen as a crucial factor for companies to stay competitive in the long-term. The concept is defined as the 'multi stage process whereby companies transform ideas into new/improved products, service, or processes, in order to advance, compete and differentiate themselves successfully in their marketplace' (Baregheh, Rowley, & Sambrook, 2009, pp. 1334). This will be the overall definition in the scope of this study, in the context of an IT outsourcing environment. Aubert et al. (2015) opened new paths for research on IT outsourcing and innovation. In their literature research, they identified the paradox of obtaining innovation in outsourcing contracts. Identifying and exploring paradoxes are helpful in the search of theory building and identifying creative responses. Innovation in outsourcing is not something that occurs by chance or default (Weeks & Feeny, 2008). While outsourcing to suppliers helps reduce costs in the short term, it may have a negative impact on innovation.

Today, managers are in a position where they need to give their suppliers freedom and flexibility to foster innovation, while simultaneously being as clear as possible, avoid uncertainty and monitor them closely to ensure the contract does not lead to opportunistic behaviour. Therefore, it is not surprising that it entails complexity when outsourcing is chosen to enable innovation. Innovation calls for a long-term vision, differentiation and creativity. Outsourcing is merely focussed on short-term vision and mostly about cutting costs, since it has and continues to demonstrate it improves competitiveness.

Innovative capabilities of companies are dependent on experience and knowledge captured over many years. To survive in the long term managers need to reconsider their strategies to ensure creativity and high added value (Hoecht & Trott, 2006). In addition, losing innovative competences is known as a potential risk in ITO (Shi, 2007). Both high quality IT services at low costs and increased business value are the most obvious goals, but seen to be almost impossible. 'Innovation' or 'added value' are dimensions that firms find themselves mostly disappointed about (Weeks & Feeny, 2008). Managing and understanding conflicting demands enables success for organizations in the long run (Smith, Binns, & Tushman, 2010; Smith & Lewis, 2011). These conflicting demands, associated with innovation through outsourcing, are highlighted below, in Table 1. On the left elements are presented that seem to lead to an innovation-poor environment, while on the right elements are presented in a way that are linked to innovation within outsourcing. Managers need to handle these elements on both sides when managing innovation through (IT) outsourcing.

Based on these contradicting elements four mechanisms are offered by (Aubert et al., 2015), to understand the innovation through outsourcing paradox. These include: dual formal reviews, matching level of innovation with governance, dynamic decision making & extreme contracting, and ambidexterity. These four mechanisms are the architecture of this study for suggestions to obtain innovation from outsourcing contracts. Therefore, propositions are derived from these mechanisms. This is the first research that aims to find empirical evidence to bridge the research gap in innovation in ITO.

<b>Contractual view of outsourcing</b>	<b>Focus</b>	<b>Innovation driven view of outsourcing</b>
Agency theory, transaction cost theory (TCT), and resource-based view (RBV)	Theoretical bases	Open innovation, knowledge management, organization theory (e.g., organization structures)
Used strategically by each party for its own advantage and self-interest	Anticipated use of information	Shared use of information for fostering creativity and innovation
Negative: leads to opportunistic behaviour	View of uncertainty	Positive: essential to create something new
Divergent	Goals	Shared (at least in part)
Avoidance	Risk	Taking
<i>Prescriptions</i>	<i>Prescriptions</i>	<i>Prescriptions</i>
Outsource measurable activities (Aubert, Houde, Patry, & Rivard, 2012); ensure process standardization, measurability, and contract completeness (Wullenweber, Jahner, & Krcmar, 2008), SLA's (Goo, Kishore, Rao, & Nam, 2009)	Type of arrangement or contract	Flexible, slack resources, decentralized (Crossan & Apaydin, 2010; Damanpour, 1991)
Innovation depends on accumulation of knowledge which is not easily bought and sold (Hoecht & Trott, 2006), control of strategic assets (Straub, Weill, & Schwaig, 2009)	Skills and knowledge	Skills of external partners is an absolutely essential condition for the success of the innovation process (Chesbrough, 2003; West, Vanhaverbeke, & Chesbrough, 2006)
Control the outsourcing supplier (Barthélemy & Quélin, 2006)	Governance	Rely on internal and external distribution circuits (Christensen, Olesen, & Kjær, 2005; von Krogh & von Hippel, 2006)
Use of supplier with which prior experience to build strong relationships (Goo et al., 2009)	Experience with supplier	Use of new suppliers or new ways of working with existing supplier to increase the diversity of ideas (Gilsing & Nooteboom, 2005)

*Table 1 Tensions with innovation through outsourcing (Aubert et al., 2015)*

As presented in Table 1, forms that limit the innovation in outsourcing are risk-averse decision-making, tight form of contracting, opportunistic behaviour by outsourcing suppliers, and a short-term vision. These are linked to companies that use outsourcing as an approach for cost reduction instead of improving service quality or generating new business value. Focus on one aspect of the paradox does not provide the benefits from outsourcing, which means it is not simply a contingency, but a contradiction. This means that managers have to achieve both sets of conflicting demands at the same time, not one or the other depending on a particular situation (Aubert et al., 2015). A tight contract focusing on outsourcing efficiency between the client and an outsourcing supplier includes elements that are detailed, specific and measurable. However, this limits the ability of the supplier to take risks, initiatives and to innovate.

### **1.3 Research question**

If innovation is considered as an important outsourcing requirement, it is essential to describe all necessary elements to drive innovation in outsourcing. Therefore, it is important to define in general what is understood by 'innovation in IT outsourcing'. A combination of the definition of innovation described in section 1.2 and the IT outsourcing context is created. Innovation in IT outsourcing is, in this research, perceived as the 'continuing success to go beyond transactional and operational work to achieve new productivity gains'. This can be done by the multi-process of implementing new practices through unique creative methods of implementing standardisation and automations, driving continuous improvement and assuring performance IT outsourcing relationships. Investigating factors go beyond cost saving and thus focus of the overall study is on innovation in IT outsourcing with a long-term vision to achieve the objective of an enhanced business.

Adequately managing a paradox and meeting conflicting demands enables long-term success for organization (Smith et al., 2010; Smith & Lewis, 2011). How innovation can be enabled in outsourcing contracts still remains difficult. Therefore an understanding of the paradox is needed. Building on this purpose, the main and high level research question of this research is: *How can the 'innovation outsourcing paradox' be managed in the context of an information technology outsourcing (ITO) environment?*

In order to answer the research question, this research will focus on investigating the factors that highlight the conflicting demands. These are described as self-correcting cycles by Aubert et al. (2015). The mechanisms, which are further developed in Chapter 2, are: dual formal reviews, matching level of innovation with governance, dynamic decision making & extreme contracting, and ambidexterity. Based on these mechanisms propositions are derived and empirically tested.

## **1.4 Relevance**

Based on the research gap and the suggestions the proposed study has a theoretical and practical/managerial relevance that will be explained in the following sections.

### **1.4.1 Theoretical**

Different independent variables used and explained in the outsourcing literature were uncertainty, asset specificity, measurement difficulty, and transactions costs (Lacity, Khan, Yan, & Willcocks, 2010a). It is obvious that economic theories were used to guide this research. However, these variables are not well suited if a company seeks to explain innovation and how outsourcing can enable this. Through this evolving discipline, research on innovation in outsourcing intended to lag behind on industry practice. Current literature is based on ITO relationships (Oshri, Kotlarsky, & Gerbasi, 2015b) and client-supplier relationships which are identified as a research gap (Dibbern, Goles, Hirschheim, & Jayatilaka, 2004; Liang, Wang, Xue, & Cui, 2016). According to specific studies, only a few focus explicitly on innovation, and hardly any of the existing literature has focused on innovation in ITO (Aubert et al., 2015; Linden & Schmidt, 2016). Furthermore, outsourcing is found to be suitable for elements that are not part of the core capabilities of the firm (Cullen, Seddon, & Willcocks, 2007) and involves the contracting of a business or operational process to another party. Outsourcing is a discipline that evolves quickly and research is lacking behind on industry practice (Calantone & Stanko, 2007). However, innovation itself has been studied from many perspectives. Innovation related research is mostly indirectly subsumed under other topics (Linden & Schmidt, 2016). There are limited researches available about theory that fully explains ITO decisions made in practice (Rajaeian, Cater-steele, & Lane, 2015). Moreover, as regards specific research studies, only a few focus explicitly on innovation. One of the few examples is the

model of the collaborative innovation process by Whitley and Willcocks (2011) which identifies practices related to the generation of innovation. Most researches on ITO are focused on determinants, management, properties arrangements, and outcomes about the outsourcing contract (Lacity, Khan, Yan, & Willcocks, 2010b). Most reviews considered outsourcing as a dependent variable or analysed its immediate consequences. In addition, outsourcing is mostly analysed under contracting or partnering lens (Aubert et al., 2015; Dibbern et al., 2004).

Until now, neither industry practice nor academic literature offers a clear and longitudinal evaluation of how ITO affects innovation and which actions can be taken for enabling innovation (Linden & Schmidt, 2016). Since IT outsourcing and innovation are paradoxical, the proposed research provides empirical insights into how companies can address tensions regarding these concepts.

#### **1.4.2 Practical**

Outsourcing services are considered as important factors of the organizational strategy of organizations. However, companies consider outsourcing mostly to cut costs. Due to changing economy and disruption, executives and managers are also willing to find new ways to innovate and transform their business (Oshri et al., 2015b; Polansky et al., 2004). Therefore, IT platforms need to be modernized to allow companies to continue growing and innovating. The importance of this study is to know how innovation can be enhanced in ITO practices. However, how such value-creating innovation structure should look like and can be managed still remains difficult to confirm. In previous literature, attention was mostly given to the innovation itself and the factors enabling innovation. However, little attention was given to the practicalities involved in the contractual aspects of outsourcing and collaborating with outsourcing suppliers to innovate. As already mentioned, Aubert et al. (2015) opened new paths for further research and their proposed framework based on the innovation through outsourcing paradox needs to be tested and refined to reflect on practical matters.

## **1.5 Thesis overview**

To answer the proposed research question, this study is structured around the investigation of several factors. Workings propositions derived from the literature are elaborated and reviewed in Chapter 2. In addition, a conceptual framework among the interconnections of the concepts is presented. A detailed description of the research methodology is discussed in Chapter 3. The findings and background of the cases are demonstrated as primary data in Chapter 4, prior to a cross-case analysis. In Chapter 5, six propositions are refined and tested by interpreting the findings and revisiting the research question, as formulated in this chapter. Also, contribution to existing literature, implications for theory and practice, and suggestions for future research are described in Chapter 5. The set of conclusions is given in Chapter 6.

## 2. Literature Review

Based on the introduction of proposed research problem and research question the literature review is conducted in this section. The essence is to go deeper into the available literature of the four mechanisms which forms the thread of the research. The four mechanisms are dual formal reviews, matching level of innovation with governance, dynamic decision making & extreme contracting, and ambidexterity. Firstly, innovation is discussed to shed a light on the importance of the concept and its corresponding strategy attributes. Secondly, the IT outsourcing definition, strategy and its corresponding attributes are discussed. Both strategies are combined and further developed and described as reinforcing cycles, which forms the innovation through outsourcing paradox. Thirdly, the literature review is built upon the four mechanisms. Chapter 2 ends with an interconnected framework of these mechanisms and its associated concepts.

### 2.1 Strategic role

The essence of this section is baselining the strategy for innovation and IT outsourcing. Innovation is becoming more important for gaining competitive advantage. Organizations must adapt to the changing environment and are looking for sources within and outside its organization.

#### 2.1.1 Innovation strategy

Innovation is a key driver for growth, for firm productivity and profitability. Innovation includes the generation, development and implementation of new ideas in organizations (Damanpour, 1992). It enables companies to survive and to remain competitive.

Traditionally, research suggests that organizations have to remain flexible, decentralize, offer slack resources, and provide information exchange between units in order to foster innovation (Damanpour, 1992).

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*Innovation is the practical implementation of an idea into a new device or process*  
(Schilling, 2008)

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Improving innovation requires a well-crafted strategy and should align with the firm's resources and objectives, leveraging its core competencies and helping achieve firms' strategy.

The organizational structure and control systems should encourage the generation of innovative ideas, while also ensuring efficient implementation. Therefore, with implementing an innovation strategy, an organization needs a deep understanding of the innovation dynamics, the innovation strategy, and a well-designed process strategy. (Schilling, 2008).

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*Technological innovation is the act of introducing a new device, method, or material for application to commercial or practical objectives (Schilling, 2008)*

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### **2.1.2 IT Outsourcing strategy**

Information technologies opened new paths for innovation. These paths involved knowledge sharing, participation and collaboration between individuals and groups. These elements are applicable between different organizations, since organizations cannot only rely on their internal skills. Therefore, outsourcing increased between organizations, consumers and suppliers as a dynamic system. Accessing external and internal knowledge can be an element of the innovation process (Chesbrough & Teece, 2002). With open boundaries, firms can access ideas and collaboration through outsourcing. Literature argues that a firm uses a network of suppliers to access their knowledge and does not just innovate alone (Amin & Roberts, 2008). Outsourcing has also created access to multiple information sources within organizations to foster value networks.

### **2.1.3 Different levels**

Within ITO, innovation can be considered with different detailed levels. On the one hand, innovation can be delivered at the general IT architecture. On the other hand innovation can be delivered when implanting software or application systems. Innovation in ITO can also be seen as the implementation of a better or faster process. Therefore, different levels of innovation exists within ITO and have contrasting determinants and organizational effects (Benner & Thushman, 2001). Incremental innovation builds on the firm's current capabilities, while radical innovation fundamentally changes the technological trajectory (Green, Gavin, & Aiman-Smith, 1995; Von tunzelmann, Malerba, Nightingale, & Metcalfe, 2008) .

## **2.2 Innovation in IT outsourcing**

This section can be derived from the tensions elaborated in Table 1. Conflicting demands initiates reinforcing cycles are elaborated, which is the essence of this section. This causes the paradox, since outsourcing contracts and innovation seem to be contradictory. In addition, literature on how to approach a paradox is shortly justified.

### **2.2.1 Conflicting demands**

Due to different interests between companies and its outsourcing suppliers, contracts are discussed as protection mechanisms. These contracts define monitoring, rights, protection, planning and resolution and typically include audits, reviews, and benchmarking procedures (Aubert et al., 2015; Chen & Bharadwaj, 2009). Service level agreements (SLA's) specify the activities performed by the parties. Penalties, standards and outcomes of these activities are described in details. Associations with outsourcing success emanating from ITO research are the low uncertainty activities, standardization, completeness, and measurable elements within the contract (Aubert et al., 2015; Wullenweber et al., 2008). Different arguments about contracts within outsourcing have been discussed in previous literature. On the one hand, companies should be careful and control their outsourcing suppliers by precise contracts (Barthélemy & Quélin, 2006). On the other hand, to obtain innovation, it requires in-house capabilities, such as competitive advantages as conducted in the core business, and strong business leadership (Quinn, 1999; Willcocks, Feeny, & Olson, 2006). The resource-based view explains that outsourcing can lead to lose know-how, which can lower the capacity of the firm to innovate. In addition, knowledge cannot just bought and sold (Hoecht & Trott, 2006). So literature suggests that outsourcing is at odds with the innovative capabilities within a firm (Straub et al., 2009). Outsourcing is a complex process; the advantage of achieving sustainable savings makes it very attractive. Today, it is the ability to attract and retain critical skills combined with flexibility that makes the difference.

### **2.2.2 Reinforcing cycles**

The reinforcing cycles highlight the nature of the paradox. In Table 1, tensions associated within the paradox are demonstrated, which is established by Aubert et al. (2015). The forces presented lead to reinforce cycles. On the left, Table 1 presents the focus on outsourcing efficiency with a tight contractual regime. On the right, Table 1 persist innovation success with a loose contractual regime.

A tight contract, focusing on outsourcing efficiency between the company and its outsourcing supplier includes elements that are detailed, specific and measurable. However, this limits the ability of the supplier to take risks, initiatives and innovation. In addition, a tight contract will provide a low level of flexibility. Which will drive the company's manager to reinforcement, measures, and penalties and add closer monitoring, since the supplier is not able to innovate. A loose contract focusing on innovation success between the company and its outsourcing supplier includes elements of little control and flexibility. However, it is difficult for a company to monitor the process and outcomes. As well as create impossibilities to assess the work that is delivered. In the contract theory information asymmetry deals with the lack of balance of the available information between parties. This creates an imbalance of misalignment in the communication process. Due to this information asymmetry, even in tight contractual regime, the outsourcing supplier may deliver only a part of the innovation developed or the entire innovation. However, it should be on the terms and at a price that may greatly reduce the benefits for the client firm (Oshri et al., 2015b).

### **2.2.3 Managing a paradox**

To deal with the paradox, three general means are described (Lewis, 2000). Firstly, acceptance enables managers to admit tensions. Secondly, confrontation leads to understand the situation. Thirdly, transcendence offers more complex solutions by thinking differently about the problem (Lewis, 2000). A paradox can be identified when innovation is sought through outsourcing. The requirement of monitoring, measurement, low uncertainty and control to adequately manage the contract exist. On the other hand, innovation is ensured when managers offer flexibility, slack resources and changeability to their supplier.

## **2.3 Dual formal reviews**

Considering the tensions of both control outcome and the innovation aspects, the paradox can be managed. Literature suggestion is the conscious and formal process of reviewing the contract periodically. Such process can be of aid as a constant reminder for the company and its outsourcing supplier within governance of the outsourcing contracts.

### **2.3.1 Control versus flexibility**

Previous literature emphasizes the importance of both the contractual formal approach (Aubert et al., 2015; Chen & Bharadwaj, 2009; Goo et al., 2009) as well as the relational informal

approach (Aubert et al., 2015; Goo et al., 2009; Oshri et al., 2015a) for effective organization of IT outsourcing. Formal contractual control is focused on outcome mechanisms, which involve periodic measurements as well as reviewing the process, and performance to fulfil the IT services. Behavioural or process mechanisms include visits, calls, meetings reviews and workshops. Innovation literature has also examined several types of control mechanisms to manage the effectiveness in innovation projects and for developing new products. Both process and outcome mechanisms are used for controlling new product development (NPD) projects (Droege, Hildebrand, & Forcada, 2009; Hoecht & Trott, 2006). Periodic control for evaluation is done through examining and reviewing different stages in NPD projects. This process seem to have a positive effect on costs and commercial objectives (Lewis, 2000). Though, highly complex controls of activities may lead to a negative effect on innovation outcomes. This can reduce flexibility, creativity, and risk-taking.

Dual formal reviews, the conscious and formal process of reviewing the contract periodically, would enable that the paradoxical demands are highlighted and recognized. Therefore, balance is maintained between both of the control mechanisms. By the combination of the elements from the contractual and the innovation, as well as planning the reviews at important stages within the NPD gates, the paradox of innovation through outsourcing can be managed. In this way the tensions mentioned earlier are addressed and revised whereas the contracting strategy can be balanced. In addition, dual formal reviews can help identify check points for governance and knowledge needed at the company and its outsourcing supplier to complete activities within the outsourced project. This allows executives to confront the paradox (Aubert et al., 2015; Lewis, 2000). Proposition 1 is created, derived from literature and inspired from Aubert et al. (2015):

***Proposition P1.*** *Innovation through outsourcing can be managed effectively using dual formal reviews in the development process, emphasizing, but not limited to, outcome controls in the review process pertaining both to the outsourcing and the innovation aspects.*

## **2.4 Matching level of innovation with governance**

After the examination of conflicting demands, literature elaborate on how to confront it. To confront the above mentioned paradox, innovation should be seen from the governance to achieve this kind of strategic matching. However, governance should fit the strategy depended

on the type of innovation. Modular and systemic innovation levels are discussed and related to the right governance strategy.

#### **2.4.1 Modular or systemic innovation**

Innovation can be further categorized in how it can affect systems and link technologies (Henderson & Clark, 1990). Modular innovation affects a (sub) system or technology on a component of a larger product. By improving this component it will not change its interactions with other components. Systemic or architectural innovation involve the transformation of all components at once, including how they interact (Benner & Thushman, 2001; Henderson & Clark, 1990; Langlois & Robertson, 1992; Robertson & Langlois, 1995). A classic example of modular innovation is the improvement of processors or hard drives while being compatible with the other components of the computer systems. Systemic innovation is the invention of the computer to transform the nature of communication.

Outsourcing is found to be suitable for elements that are not part of the core capabilities of the firm (Cullen et al., 2007). Outsourcing non-core activities can be easily controlled and likely to be a modular activity rather than systemic. Within these modular segments protection is ensured due to the limited view of activities for suppliers. In addition, transferring specific knowledge is difficult. These activities can limit the innovation potential of the outsourcing arrangement.

Specific types of innovations might have specific implications for the tensions as well as the paradox resolving mechanisms. It is likely, for instance, that the tensions will be stronger for radical innovation than for incremental innovation, perhaps requiring a refinement of the self-correcting cycles (Aubert et al., 2015). So outsourcing can lead to innovation, but it can also limit innovation. With modular innovation, knowledge outside the firm can be used, new ideas can come from the supplier, flexibility and freedom can be given, and control can be preserved. However, with systemic innovation associated with high asset specificity and uncertainty, outsourcing can hinder innovation because it can remove coordination and control over a big change. Therefore proposition 2 is created (inspired from Aubert et al. (2015)):

***Proposition 2.*** *When innovation done through outsourcing has a systemic element, contractual view should be used to define how to integrate the innovation within the organization. Alternatively, modular innovation done through outsourcing should downplay contractual constraints and emphasize an innovation-driven view to ensure that innovation occurs.*

The type of innovation should be in fit with the outsourcing strategy and governance of the organization. The client can control and retain knowledge when using clear measurements and

standards. However, when module set of activities is outsourced, the supplier could have the flexibility and freedom to acquire innovation. This approach seems to allow executives to transcend the paradox. Different innovation objectives in combination with different tensions enable executives to transcend the paradox and to reframe the problem.

## **2.5 Dynamic decision making & extreme contracting**

The essence of this section is another way to deal with the paradox ensuring individuals involved in the management using interactions and decisions. With informal interactions, decisions can be adjusted and evaluated considering each side of the decision-making problem. This mechanism includes two important attributes, which are dynamic decision and extreme contracting. These attributes and the literature leads to two propositions, P3 and P4, discussed and defined below.

Stakeholders should understand the dual conflicting perspectives as described in the previous section. To enable this, executives can interchange between roles and responsibilities to emphasize each aspect of the paradox. For example, an innovation officer can be given responsibilities for controlling and monitoring costs. On the other side, a contract manager can be given responsibilities linked to adopt innovation (Smith et al., 2010).

Dynamic decision-making enables managers to look at different approaches, both the innovation driven and contractual view. They alternate between the two perspectives of the tension. In this case, a form of acceptance or confrontation of the paradox is created (Lewis, 2000). Therefore proposition 3 is the enabling the consideration of paradoxical demands.

Playing along between the two sides of the tensions to enable innovation in outsourcing, the following propositions can be created (inspired from Aubert et al. (2015)):

***Proposition 3.*** *For innovation through outsourcing contracts, alternating the roles of the person responsible for contractual control and the person responsible for innovation, would enable the consideration of paradoxical demands.*

Extreme contracting is the joint management between the two different managers. Instead of job rotating roles, managers could continuously tackle points of view. This can lead to extreme contract management, which facilitates communication, adjustments, and re-evaluation

between two different managers and tasks. This agile environment enables teams to engage in the innovation process, while ensuring that contracting conditions are met. In addition, adaptation in contracting for smaller contracts are appropriate in extreme contracting (Bose, 2008). Flexibility and a network of collaborators within the contracting environment could facilitate dynamic decision-making and the awareness of different approaches.

Once a base layer of a core set of elements is developed, innovation activities are performed to enhance the project. Extreme contracting uses a subset of the approach features in a contractual setting (Bose, 2008). At the same time contracting approach could be adapted to the situation as well. In this manner, dynamic decision-making is balanced.

In extreme contracting, compared to dynamic decision-making, could be seen as a continuously enduring review. When taking tensions into account all the time, proposition 4 can be created derived from the literature (inspired from Aubert et al. (2015)):

***Proposition P4.*** *For innovation through outsourcing contracts, “extreme contracting” using a pair of contract managers (one responsible for innovation and one for contractual control) would enable the consideration of paradoxical demands.*

## 2.6 Ambidexterity

The essence of this section is that organizational structure has an impact on dealing with the proposed paradox. Again, conflicting demands of ambidexterity are discussed by literature. It seems to be an important mechanism to achieve overall success in innovating through outsourcing. This mechanism has also two attributes, temporal and structural ambidexterity, which leads to two propositions, P5 and P6.

Ambidexterity is the ability of being both adaptable and efficient in a changing environment (Duncan, 1976). Balancing exploration and exploitation allows the company to be creative and adaptable, while also relying on contractual and traditional methods of the business (March, 1991).

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*Ambidextrous organization is the ability to behave almost as two different kinds of companies at once. Different divisions of the firm may have different structures and control systems, enabling them to have different cultures and patterns of operations (Schilling, 2008)*

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Multiple studies have observed that in industries characterized by high-speed technological change, many large and hierarchical firms have been disaggregated into networks of smaller, often more specialized, autonomous divisions or independent firms (Golembiewski, 1998; Hagel & Singer, 1999; Snow, Miles, & Coleman, 1992; Zenger & Lazzarini, 2004). Multiple internally inconsistent architectures can ensure both long term innovation and short term efficiency (Chesbrough & Teece, 2002; Johns & Lynda, 2013). Structural dimensions of an organization including standardization and formalization affect the organization's propensity to innovate. Ambidextrous organizations attempt to achieve both of the advantages.

Both exploitation and exploration within organizations is difficult to manage and to balance. These approaches explore underlying tensions such as from risk taking, flexibility, and innovation to efficiency, refinement and execution (March, 1991). On the one hand, exploration of new products or ideas enable growth. On the other hand profitability is ensured to exploit current ideas. Achieving balance between exploration and exploitation is organizational ambidexterity. This means that process management activities need to be aligned with technological innovation and organizational adaptation (Benner & Tushman, 2003). However, both approaches are also incompatible due to different routines and mind-sets. By organizing the two activities simultaneously, an organization can engage in ambidexterity. According to Benner & Tushman (2003), exploratory units are small and decentralized, with loose cultures and processes; the exploitation units are larger and more centralized, with tight cultures and processes. Exploratory units succeed by experimenting, exploitation succeed by reducing variability and maximizing efficiency and control. This duality is organized in subunits. Therefore the proposition derived from the literature is:

***Proposition 5.*** *Innovation through outsourcing could be managed effectively through structural ambidexterity, using two teams, to focus respectively on efficiency and adaptability/flexibility aspects of the innovation through outsourcing arrangement.*

This proposition is derived from and adapted on the literature research of Aubert et al. (2015). In addition, separating efforts temporally can also be a way to find the balance between the two approaches (Boumgarden, Nickerson, & Zenger, 2012). The concept of vacillation can achieve high levels of exploitation and exploration by sequentially shifting between the structures of the organization. This can offer long-term performance than structural ambidexterity.

Based on previous literature two potential propositions are created for ambidextrous organization for managing the paradox of innovation through outsourcing. Organizations may have dimensions with different structures and control schemes, or may alternate between

different structures (Schilling, 2008). In terms of structural ambidexterity, responsibilities could be isolated and assigned to different teams, such as an innovation focus and contractual focus separately both on the client and the supplier side. This is represented in the decision making process. In terms of temporal ambidexterity, alternating between innovation and contractual elements can promote both of the tensions. Proposition 6 can be derived from the literature as:

***Proposition 6.*** *Innovations through outsourcing could be achieved through temporal ambidexterity by oscillating over time between operational efficiency and adaptability/flexibility in the outsourcing arrangement.*

This proposition is derived from and adapted on the literature research of Aubert et al. (2015). Both propositions refer to the tensions mentioned before. Proposition 5 considers each tension in the organizational structure. Proposition 6 considers the tension as intervals within an organizational cycle and easier to implement in larger contracts. This is more a dual formal structure. For small projects, vacillation is more accurate. Furthermore, it seems that ambidextrous organizations accept the tensions presented in the paradox as described as a mean considering the model of managing the paradox (Lewis, 2000). With temporal ambidexterity confrontation might become possible, rather than with structural ambidexterity. It does not call for transcendence as a mean of managing the paradox.

## **2.7 Model Framework**

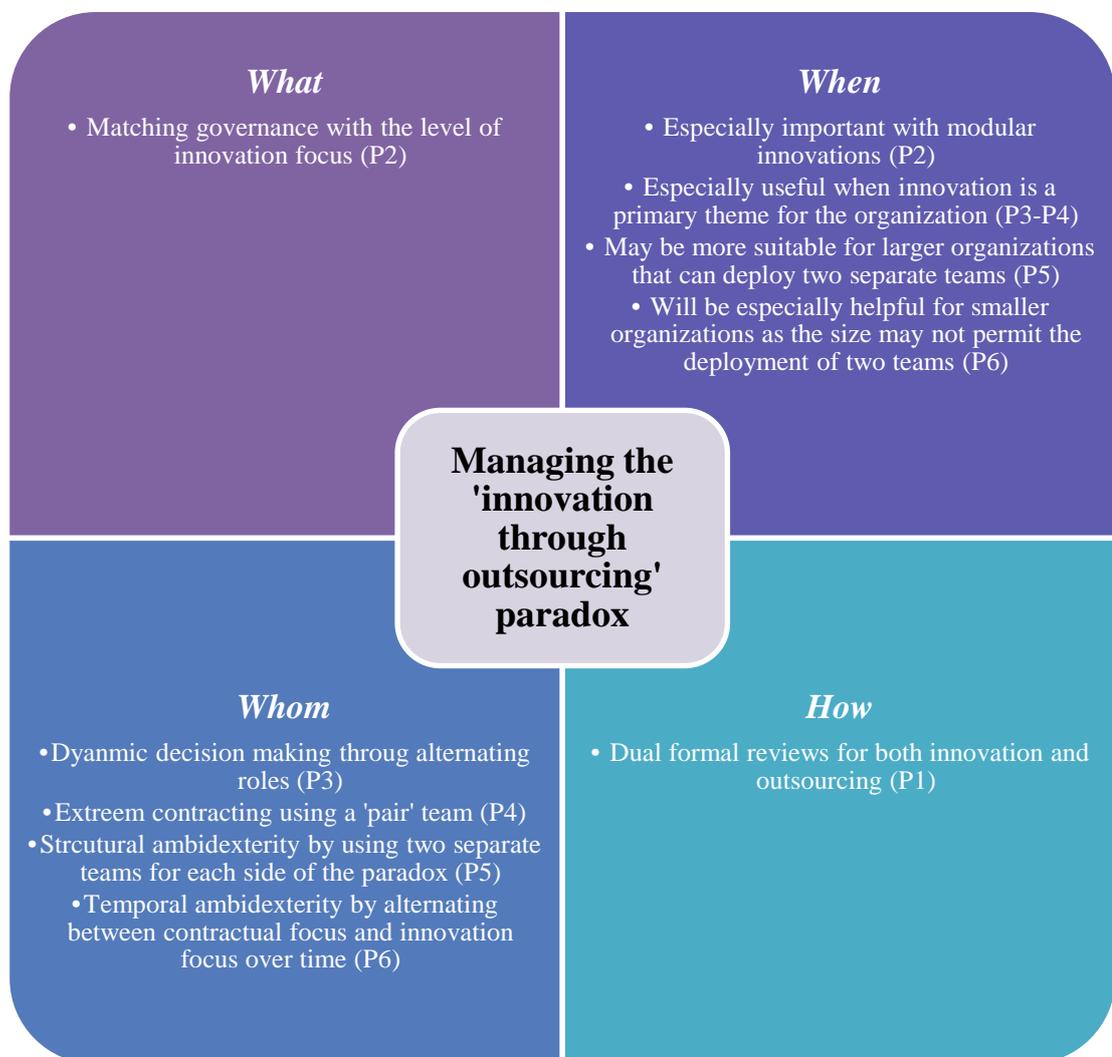
As already mentioned, focusing on only one aspect of the discussed tensions, contractual or innovation, is detrimental to the organization and would not provide benefits from outsourcing (Aubert et al., 2015). Managers need to achieve both sets of conflicting demands to manage the paradox. In this study the paradox, including the tensions is discussed and how these paradoxical demands can be managed when using IT outsourcing.

### **2.7.1 Interconnections between mechanisms**

The propositions and mechanisms create an interconnected framework together, mentioned as the ‘innovation through outsourcing paradox framework’. This model, demonstrated in Figure 1, is created by Aubert et al. (2015) and used to test its applicability in this study.

Interconnections are part of an overall architecture to manage the paradox. The dimensions are brought together and demonstrated in Figure 1.

The *what* element refers to the level of innovation. The *how* element refers to the governance within the level of innovation and captured within the mechanism of dual formal reviews. The *whom* element refers to the structures and roles associated within governance and innovation which is captured within the mechanisms of dynamic decision making & extreme contracting, and ambidexterity of organizations. The *when* element refers to the conditions under which the mechanisms are proposed.



*Figure 1 Interconnections between propositions and mechanisms (Aubert et al., 2015)*

In IT outsourcing, this framework will give interesting results since innovation cannot be centred on simple contractual performance measures. Innovation is a complex concept and therefore needs a more nuanced theoretical clarification.

Based on the literature an initial framework of how innovation can be managed in IT outsourcing is demonstrated in Figure 1. In this framework the propositions are identified. These propositions form the foundation and interconnections of the essential questions in the case study protocol used in fieldwork (Yin, 2009).

### 3. Research approach

Theoretical constructs are explored and presented in the previous chapter. The underlying framework provides a basis for the mechanisms and its interconnections. This is further developed and tested in Chapter 4 the way in which the proposed research is conducted and how data was found and processed are discussed in this chapter. The detailed research design, case selection, analysis, and issues of validity is explained.

#### 3.1 Research design

As showed in the previous chapter, the Information Systems (IS) literature has not yet embraced the topic of innovation through outsourcing. The focus of the four mechanisms (dual formal reviews, matching level of innovation with governance, dynamic decision making & extreme contracting, and ambidexterity) are suggestions that can allow managers to deal with the innovation through outsourcing paradox. The focus of the research contains the interaction between the company and its outsourcing supplier, and how executives can manage the innovation through outsourcing paradox. This is done by identifying the relationship build on

theories of the mechanisms and its constructs derived from the literature. In this research, the conceptual framework is empirically tested and therefore uses its exploratory power. This is of essential importance in the phase where little or even no investigation is conducted. In this way, the applicability of the framework is studied, by means of well-documented cases and its

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*Qualitative research is especially used when little is known about a phenomenon or a relatively unexplored area, where the focus lies on depth, detail, and exploring (Yin, 2009).*

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corresponding interviews. The literature on innovation is advanced, but not yet specified to this particular paradox in ITO capabilities. To explore new areas of unknown territory of the innovation through outsourcing paradox for the academic literature, this study calls for a more exploratory research approach to build or refine the current theory. In addition, case studies are empirical inquiries that investigate a contemporary phenomenon in depth and within their real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2009). This is a suitable method for collecting qualitative data in the field of Innovation Systems (Orlikowski & Iacono, 2001), since the research is intended to evaluate and spread the current knowledge on innovation within ITO (Yin, 2009). By adopting a longitudinal qualitative approach, observations and thereby patterns could be reviewed. In

addition, exploratory research from a practical perspective is needed to enable innovation practices in IT outsourcing for the long-term.

Furthermore, the research objective of this study is to test the applicability of the framework that provides practical insights and practices that enables management of the innovation through outsourcing paradox.

### **3.2 Data collection**

Data collection contains a combination of semi-structured face-to-face interviews with 9 executives from both company and its outsourcing supplier perspective, and document analysis which includes excerpts and contracts of the cases. In addition, corporate expert interviews and discussions within the Shared Services and Outsourcing Advisory team are conducted to use the global expertise of experienced professionals. In this manner, innovation through outsourcing is brought highly into practice and engagements between both parties are discussed this combination of methods makes the proposed research generalizable and valid. Secondary data mainly include available company documents and contracts of the projects, academic and professional journals, surveys, reports, and presentations.

The sample was selected to include cases which reflected the innovation through outsourcing paradox. Since the paradox is associated with tensions and changing demands, the study aims to search for cases based on dynamic industries. These dynamic industries are found among the healthcare, telecommunications and consultancy sector. Therefore, three cases are identified and showed in Table 2. The findings of the cases and the interviews are compared, and identification of a number of specific innovation initiatives in outsourcing is to be researched in detail. Appendix I provides an overview of the interviews that were conducted at 6 organization, including its executives. The interview protocol is demonstrated in Appendix II. Due to the reasons of confidentiality, names are not assigned for the cases.

In Table 2, the case characteristics are demonstrated as a clear overview.

	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>
<b>Respondents involved in outsourcing</b>	3	3	3
<b>Perspective</b>	Client X, Supplier Y	Client S, Supplier T	Client Q, Supplier R
<b>Contract duration</b>	8 years	8 years	10 years
<b>Type of industry</b>	Health insurance	Telecommunications	Consultancy
<b>Firm Size</b>	2.500	15.000	200.000

*Table 2 Case characteristics*

All three cases have a long history, where the relationship between the company and its outsourcing supplier in ITO was established over more than 5 years ago. Every case covers the phenomenon of a change in the sourcing strategy and change in the contracts. The first case (Case 1) consists of a large health insurance company (Client X) implementing a digital workplace and recently changed the contract with its supplier (Supplier Y). The second case (Case 2) is the examination of a large company in telecommunications industry (Client S) which has gone through a consolidation process of supplier(s) (Supplier T) within ITO and a change its contracts. The third case (Case 3) is a large consultancy company (Client Q), which turned its outsourcing strategy to cloud computing with its supplier (Supplier R).

### **3.3 Data analysis**

The unit of analysis in each case is the IT outsourcing services. The cases under examination contain three organizations who outsourced their IT services, together with three major service suppliers. Within each case the objective is to find evidence about how innovation can be delivered. In addition to the within-case analyses, a cross-case analysis is performed to generate propositions. Executives at both ends of the spectrum were questioned using semi-structure interviews. Perspectives taken in each of the three cases were the Client perspective (Client X in Case 1, Client S in Case 2, and Client Q in Case 3), Supplier perspective (Supplier Y in Case 1, Supplier T in Case 2, and Supplier R in Case 3) and the ‘Helicopter view’ (literature, white

papers, reports, external interviews, expert interviews, workshops, discussion). This shows the opportunity to dive into the details and richness of the case.

To increase the reliability and validity of the case study approach this research follows the guidelines from Yin (2003). Table 3 summarizes the points of rigor that are addressed in the study. Since internal validity is only valid for explanatory or causal studies, the notion of these criteria was not addressed in this research.

<b>Criteria</b>	<b>Guideline</b>	<b>Approach Taken</b>
<b>Construct validity</b>	Multiple sources of evidence	Secondary data combined with interviews (1) Informal discussions & expert interviews with different professionals (2) Contracts (3) and excerpts (4) from ITO services, corporate documentation
	Use of relevant literature	Literature review in relevant areas of outsourcing, IT, and innovation
<b>Reliability</b>	Use of case study protocol	Interviews are recorded, transcribed and stored
<b>External validity</b>	Replication logic	Interviews were held with CIO executives and sourcing managers related to findings in specific cases

*Table 3 Overview of academic rigorousness criteria*

All cases are rather comparable by size, including parent companies, users and employees. The outsourcing suppliers within the case studies are one of the leading enterprises with IT services ranging from infrastructure services to application services, and systems integration to business process outsourcing. In addition, the included companies are leading in the Netherlands in each of their own market. The case studies were written as single case narratives, essentially using the question and answer approach (Yin, 2009). The transcripts were loaded and manually coded into Nvivo, which is a qualitative method and technical tool to structure and visualize data. The analysis is based on the four main constructs. These main constructs consists of the four mechanisms and its attributes which are derived from the literature review. Therefore, a scheme of coding was established (Appendix III), where main constructs are used as the main nodes and its attributes are used as the sub nodes. This is tested on the basis of the context and background of the cases, and semi-structured interviews. All transcripts were manually coded and facilities within Nvivo for automation is not used.

### **3.4 Research limitations**

The minimum required number of case studies is around 4 (Eisenhardt, 1989). Since this study only describes three case studies, a detailed view from different perspectives is taken and cases are analysed in order to facilitate cross-case analysis. A limited number of executives are interviewed and outcomes can be therefore biased or commercially interpreted. To increase content validity, the interview protocol (Appendix II) was reviewed several times and informal (expert) interviews were conducted.

## **4. Findings**

After the description and justification of the research method, the data analysis is carried out. This chapter contains the case studies and will contain background information and findings related to documents. Firstly, the context and overview is discussed. Secondly, qualitative material of documentation such as reports, excerpts, and contracts is used. This information is confidential and therefore used as background and additional findings to the case. Then, the interpretation of the interviews is discussed, and a cross case analysis per working proposition is described in chapter 5.

The executives interviewed are shortly described in each case. In addition, an expert interview is conducted to increase the objectivity of this study. All relevant quotes and interpretations are discussed for each case in the cross-case analysis in Chapter 6.

### **4.1 Case 1**

#### **4.1.1 Background**

Client X is one of the major health insurance companies in the Netherlands and carries out the health insurance for different brands. In total, the company has over approximately 2.500 staff members and more than 4 million insured customers. Its offices are seated at different locations within the Netherlands. Client X desired a change program with a new sourcing strategy in 2016. One outsourcing supplier was selected as a partner in IT outsourcing in the end of 2016. Supplier Y is one of the global IT suppliers operating in multiple regions. Competences it offers to their clients are among data management, business solutions, security and big data. It already delivered datacentres since 2009 as well as data hosting and security services to its Client X. Supplier Y and Client X are contracted since 2007. In the contract of 2014 the Client X and Supplier Y agreed on a new master agreement. Therefore, in 2015, a corporate IT policy is established to have a look on a better future and further ideas are based on long run investments and choices. In this way, Client X aims to keep the healthcare affordable and transparent, and to stay customer friendly. Therefore, six themes are defined based on the future plans and the strategy of Client X. These themes are: knowledge, data management, business intelligence, digital cooperation, stability and flexibility, and working on two speeds.

Client X asked a request for proposal for the implementation and execution of ICT activities. The goal of the company was to make an agreement with the selected supplier as an ICT

provider for the workplace, telephony, network and technical application management domains. This agreement must, on the one hand, provide continuation of the current services (present mode of operations, PMO) and, on the other hand, the transition to the desired service (future mode of operations, FMO). One of the most important motivations of Client X for outsourcing is to contribute to the strategy of the company, reduce management costs and thereby focusing on the core business to provide reliable services for their end customers in the future. To attract new customers the company should be flexible and fast. In addition processes and services need to be better, more convenient and of high quality. Client X qualifies itself for quality and reliability, whereby standard (IT) services are provided from suppliers. The supplier is asked to include these objectives in their offer and Supplier Y is expected to join the agile/scrum methods used by Client X. In addition, Client X expects an integral service in which Supplier Y acts as sole contact point and any subcontractors may be directed.

Different executives from both the Supplier Y and Client X are interviewed. From Supplier Y its client executive gave their answers to the interview questions. From Client X the senior buyer/contract manager and the manager in outsourcing contracting (IT service management) gave insights to the interviews. Their quotes and interpretations are discussed in Chapter 6.

#### **4.1.2 IT outsourcing objectives & strategy**

One of the interviewees mentioned that IT is not the core business of Client X; therefore the company needs a technological partner with the right knowledge and resources to take care of the IT landscapes. To achieve the goals of Client X, an action plan is necessary to implement a new sourcing strategy. The scope of the request was the selection of the supplier that will perform the IT services. A roadmap was initiated to plan along two years and since 2017, IT management, infrastructure, and technological application management of the Client X is brought to Supplier Y as well. This means an expansion of the IT services from the outsourcing supplier. Client X wants to focus on its core capabilities and, therefore, outsourced its IT services and technical management. Managed services are now automatically handled from the cloud and workload at Client X is expected to decrease. After the outsourcing decision, the transition follows. Step by step IT services from the client are transferred to the outsourcing supplier. This transition can create cost saving at both sides. In addition, the company wants to focus on its core capabilities. The foundation to choose a market-based model is in line with the strategy and contributes to the formulated sourcing objectives. The reliability of services

remains high, and cost saving (5%-10%) can be realized from 2018. In addition, a market-based model is the first step of Client X that enables maximizing value from data.

Furthermore, one of the departments has recently started as one separate ICT division, which includes technical management, functional management, testing IT architecture, business intelligence and data analysis. Now, Client X and Supplier Y are implementing a digital workplace in a gradual manner, since the aim is to be the digital health insurer for its clients.

## **4.2 Case 2**

### **4.2.1 Background**

Client S is a large telecommunications company, seated in the Netherlands, with different subsidiaries ranging from Internet, IT, television and mobile telephony services. The company has around 15.000 employees and the company serves around 2 million customers for internet services, 6.3 million fixed line customers, and more than 33 million mobile customers in the Netherlands and its surrounding countries.

IT is critical to the business, which is in common with other organizations in the same industry. It is therefore essential that IT systems are accurate and reliable.

In 2007, a worldwide ICT services company was acquired by Client S, which resulted in an increase of the size of the company. In this manner, Client S could focus on their core capabilities and IT services were kept in-house. Later on in 2015, Client S went through a large consolidation process of suppliers. This was the consolidation from seven outsourcing suppliers to two outsourcing suppliers. Supplier T continued in this consolidation and therefore contracted with Client S since 2007. Supplier T is known as one of the global leaders in business and technology services. They started in the Netherlands more than ten years ago and gradually grow. The company is experimenting with emerging technologies and business models to provide business value for its clients. The relationship with Client T is built on trust, according to the interview of Supplier T. Supplier T and Client S are engaged for 8 years. Supplier T is delivering and maintaining IT services, a stack of applications and underlying infrastructure to Client S.

Different executives from both the Supplier T and Client S are interviewed. From Client S the project manager of the project is interviewed, whereas from Supplier T the business account

manager and head of Communications & Technology business are interviewed. Their quotes and interpretations are discussed in Chapter 6.

#### **4.2.2 IT outsourcing objectives & strategy**

In 2015 the consolidation program, called Program X, is developed to initiate cross-functional cost savings. The objective of this program was to achieve significant cost saving at several operational areas within Client S. Consolidation was between different outsourcing partners, managed outsourcing suppliers, for the operation management of IT. Program X aims at the examination of the entire supplier landscape. Another goal of this program was to create better agreements. Client S is a shrinking organization and telecom market is extremely competitive. The entire business model has considerably changed in this industry. Therefore cost pressure is present. Since the company is shrinking, it decided to work more closely with fewer suppliers. In addition, the division of work is shredded in the company of Client S. Integration among internal departments was needed, because communication was hard to manage. Client S has now two major outsourcing suppliers, and still around hundred other small supporting suppliers. The company is still trying to rationalize and to fuse many applications.

### **4.3 Case 3**

#### **4.3.1 Background**

Client Q is a large professional consultancy company for delivering services on audit, tax, and advisory. Client Q is a network of independent member firms, seated in the Netherlands and employs around 200.000 people.

Turbulent times at Client Q emerged from the changing market. New requirements and new legislations showed shrinkage at a time after years of enormous growth. There is a need for up scaling and downscaling to react faster to this changing market. Client Q has its own IT management, and therefore it can take years to expand a complete IT infrastructure. Due to times of overcapacity or under capacity it was one of the main reasons to switch to on-demand services.

Supplier R is the worldwide technology and consultancy partner of Client Q. The company has a worldwide operation and around 170.000 staff members. Recently, Supplier R is created from the merger of two global IT organizations. Client Q is a key client for Supplier R.

Responsibilities includes the delivery of services for the business as well as for growing the business of Client Q. According to the executive of Client Q, the relationship with Supplier R is already going on for 10 years with outsourced helpdesk and software services. It is a good relationship together with good experiences from both parties which was one of the reasons for Client Q to go into business with Supplier R.

Different executives from both the Supplier R and Client Q are interviewed and their quotes are discussed in Chapter 6.

#### **4.3.2 IT outsourcing objectives & strategy**

Within Client Q a number of services are outsourced. Since the migration in 2015, one of the biggest outsourced IT services is the management of the cloud. IT is the support of day-to-day management, applications still remain with Client Q, and Supplier R in India does day-to-day operation. Previously this is all done at Client Q. The other types of outsourced IT services are IT infrastructure and IT support. Now, Client Q has an IaaS (infrastructure as a service) model, which is not delivering economies of scale yet. However, the next step is to go to SaaS (software as a service) model, which is expected to increase efficiency. These are the first steps in this case; the restart and transfer to SaaS solutions are the next steps.

There are a lot of advantages for the on-demand services delivered by Supplier R. If there is a need for more storage or other services, it can be arranged in a short time at Supplier R. At the same time, Client Q can terminate services when it is not needed anymore. This creates flexibility without investment restrictions. Therefore, this new investment from capital expenditures (capex) to operational expenses (opex), and delivering on demand services, were important goals for this case. Besides, the price aspect was important as well, but not the main decision for IT outsourcing.

The project took 1.5 year to bring the progress into practice and it is still running, with duration of three years. Besides, an extra change budget was available for the transition. First, IT was internally integrated at Client Q. Now, everything is carefully documented within SLA's and reports. Supplier R included continuous service equipment that requires the company to come up with a number of service improvements on monthly basis. These improvements are based on required service deliverables. Supplier R gets tracked and measured based on results.

People working in India for Supplier R live in the process world and get involved with new technologies. Client Q can get the best of both worlds whereas Supplier R look at processes from an end-to-end perspective with continuous improvement.

In addition, due to time constraints in the selection process in this case, there was not a possibility to go into benchmarking, negotiations, and deal making. In their time of change, Client Q needed to switch quickly.

#### 4.4 Summary

This section contains a summary of the case findings. The context and background, IT decisions and strategy, and innovation aspects are demonstrated in Table 4 to get a clear overview of the cases discussed. Further investigations of the findings are examined in Chapter 5.

<b>Case</b>	<b>ITO services</b>	<b>ITO Strategy</b>	<b>Objective</b>
Case 1	IT management, IT infrastructure, and technological application management	Company wants to focus on core business	Reduce costs, creating flexibility and higher quality
Case 2	Application management and IT infrastructure	Company wants to focus on core business	Cost saving, create better arrangements among both parties
Case 2	Cloud management, IT infrastructure, application management.	Up-and downscaling	On demand services, growing the business

*Table 4 Summary of case findings*

## 5. Discussion

The previous chapter gave insights and background information of the case findings. In this chapter the significance of the findings is discussed as a cross-case analysis and the answer will be given to the research question to manage the innovation through outsourcing paradox. Concepts and corresponding mechanisms are discussed in detail for each case. Theory discussed in the literature section will be related to the data analysis, on the basis of the four mechanisms and its constructs. Propositions are tested among key observations of the cases. Each proposition concludes with a short summary of the assessment per case, the overall assessment of the cases per proposition is discussed in section 5.5 (Table 17). Furthermore, the applicability of the framework discussed in the literature and demonstrated in Figure 2.

Qualitative material and evidences of the interview transcripts are highlighted for each of the four mechanisms (dual formal reviews, governance with level of innovation, decision making/extreme contracting, and ambidexterity). In addition, expert quotations are added where relevant. Based on these evidences the interpretation of the cross-case analysis is examined in this chapter. Coding scheme derived from concepts of the literature is provided in Appendix III. The case studies discussed in the previous chapter will be examined related to the theoretical propositions that have been derived from the literature review. The cases offer detailed insights into potential innovation in ITO situations developed in real practice. In each case the emphasis lies on innovation in the ITO relationship between client and its outsourcing supplier. Together these cases show the practicalities of the applicability of the framework based on four mechanisms. Each mechanism and corresponding quotes of the interviewees are added. Then, for each proposition, key observations from the case studies will be described, related to each other, and where relevant, linked to specific pieces of literature that strengthen the proposition. This chapter concludes with a summary of the empirical findings as they relate to the proposition.

Propositions outlined are:

**Proposition 1.** Innovation through outsourcing can be managed effectively using dual formal reviews in the development process, emphasizing, but not limited to, outcome controls in the review process pertaining both to the outsourcing and the innovation aspects.

**Proposition 2.** When innovation done through outsourcing has a systemic element, contractual view should be used to define how to integrate the innovation within the organization.

Alternatively, modular innovation done through outsourcing should downplay contractual constraints and emphasize an innovation-driven view to ensure that innovation occurs.

**Proposition 3.** For innovation through outsourcing contracts, alternating the roles of the person responsible for contractual control and the person responsible for innovation, would enable the consideration of paradoxical demands.

**Proposition 4.** For innovation through outsourcing contracts, “extreme contracting” using a pair of contract managers (one responsible for innovation and one for contractual control) would enable the consideration of paradoxical demands.

**Proposition 5.** Innovation through outsourcing could be managed effectively through structural ambidexterity, using two teams, to focus respectively on efficiency and adaptability/flexibility aspects of the innovation through outsourcing arrangement.

**Proposition 6.** Innovations through outsourcing could be achieved through temporal ambidexterity by oscillating over time between operational efficiency and adaptability/flexibility in contracts.

## 5.1 Innovation focus

Innovation is complex and therefore its success is complex as well. This first section is a start of baselining innovation for the companies included. Elaboration is done of the different discussions among cases about innovation. These discussions goes beyond cost saving. However, cost reduction still may be a main decision in outsourcing. The focus between two elements are discussed and related to the cases. Based on the key observations and findings from the analysis, proposition 1 is tested in section 5.1.4.

### 5.1.1 Case 1

Within the strategic and tactical meeting structures between Client X and Supplier Y, potential for innovation is discussed as well as the developments in technologies. Within the operational consultation, the fixed subjects discussed are cost saving- and innovation opportunities. Described in the contract, the frequency of the innovation proposals delivered from Supplier Y should be conducted two times a year. Roadmaps and future visions are discussed between various executives from both parties. In this manner, opportunities for innovation are reviewed. The meaning of innovation at Client X is mentioned as ‘the creation something really new’, and ‘doing new things/services’. However, it is important to get an alignment about this meaning of innovation with Supplier Y. So far, there seems to be no clarity about innovation between both parties. According to the executive of Client X, there will become agreements on innovation contracts or agreements together with Supplier Y. Client X expects a contribution with the global expertise of Supplier Y. Now, there is still an old IT network according to the interviewee of Client X. They are looking for new opportunities to arrange this network access. He argues:

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*“It is therefore considered as an innovative manner to look for solutions in the change of working.” C*

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To innovate, Client X uses multidisciplinary teams themselves to create business value with their own IT department and its innovation opportunities. One can think about online business process automation or tools to increase customer satisfaction. Supplier Y is not able to do this, is mentioned by one of the executives:

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*“The search for true innovation is done by ourselves, therefore we run our own pilots.” C*

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However, too many suppliers resulted into many applications. Supplier Y could do this more efficiently and should be the specialist in IT.

Another executive argues that Client X cannot expect this kind of innovation from Supplier Y, since this belongs to the own future strategy and goals of Client X. He argues:

---

*“I hope that we will ever get into a situation where Supplier Y will be involved, but we are not there yet.” C*

---

Conversely, according to one of the executives of Supplier Y, a benchmark was performed and Client X had higher IT costs than peers on the market. The general goal of outsourcing was cost saving. Eventually, Client X chooses for the same trusted Supplier Y to keep everything in one hand. “Best of suite instead of best of breed” is mentioned by one of the executives. In addition, he said:

---

*“Perhaps we might not give the best solutions or be the best. However, the choice is to keep it manageable.” S*

---

This is in line with the argument of the executive of Client X said about the lack of potential deliverables of innovation. However, Supplier Y has a global expertise and apparently the company still is not able to come up with innovations for Client X. The implementation of a new workplace is not delivering new business value for Client X. However, it save costs and increase efficiency. The new way of working, as digital workplace, can be perceived as an innovation. Though, in the perception of the executive of Client X it is not suggested as innovation. First, everyone in the company needs to get used to the new situation after the transition, concerning both parties. This can lead to better customer satisfaction. The executive of Supplier Y said:

---

*“Then we are an enabler rather than he have actual innovation for Client X.” S*

---

However, Supplier Y also indicates that they have thought leaders in their scientific community. This community brings technological developments to the market and translates this to the business and their clients. Now, Supplier Y is implementing business process monitoring as value for Client X. In addition, the executive of Supplier Y also states that not every innovation is profitable. An expert as an important aspect also mentions this:

---

*“Not every development or innovation will be successful.” Expert*

---

One of the executives of Client X claims that the services of Supplier Y never surprise them. In addition, the interviewee of Client X argues that the current outsourcing supplier have limited knowledge about the real market and do not know how to create business value. He said:

---

*“Unfortunately, we never get surprised. What would it be great when Supplier Y would surprise us, listen how well they understand us and the market, and help us with our strategy.” C*

---

Within the documentation, innovation at Client X is contracted as a process of five decision moments, which are: concept, formulate, develop, and grow and handover. The new product/service development evolves through different gates from start until the launch. Every gate represents a new step in the development of a new service, which can lead to implementation to Client X or to quit the development. The underlying costs and benefits should be valid. In addition, everyone is free to propose an innovation. Client X can do a business partner of an employee of Supplier Y this.

In the agreement of the selection criteria of Client X is stated that the supplier should come with innovation comparable to the level of technical developments and for innovation in general in the market industry. This innovation level should be represented in services delivered from Supplier Y. According to the selection criteria of Client X, Supplier Y should maintain an innovation program on their delivered services. This regards to evaluation of improvements, trends, technological management supporting strategy, and competitive advantage. In addition, another criteria id the pro-active collaboration with other suppliers and Client X as strategic partners, to generate innovative ideas for Client X. Together with the innovation program of Supplier Y this will promote business effectiveness and efficiency. It may results in a reduction of costs, an increase in operational excellence, and an increase of the business value, which is not available today. However, these results are not yet been met.

The innovation program of the Supplier Y promotes business effectiveness and efficiency, which results in a reduction of costs, an increase in operational excellence, and new business value, which is not available today. However, it has not yet been met.

---

*“Applications of new technologies are expected from a global outsourcing supplier with the right know-how. They pick up innovation to offer this as a service to us, so we can do new things. I think Supplier Y is lagging behind.” C*

---

Client X knows the innovation capabilities within Supplier Y. Though, the expectation is high when dealing with a global outsourcing supplier having global expertise, such as Supplier Y. The same interviewee of Client X said:

---

*“Supplier Y gets a bad grade for innovation.” C*

---

He also stated that automation of business processes could be seen as a ‘piece of innovation’. However, according to the interviewee of Supplier Y, he mentioned that their company is hired for infrastructure, not for delivering business solutions. Furthermore, he argues that they have these innovation solutions, but Client X does use these opportunities:

---

*“We are positioned in a particular lot. We could bring a lot of innovation.” S*

---

Therefore, the executive of Supplier Y mentioned that the company rather wants to see a roadmap of innovation from Client X. It is important to share ideas and priorities to react. The executive also states:

---

*“We are always searching for the drivers of Client X, and we do not always see everything.” S*

---

According to the interviewee, the focus is now on the transition and desire is there to strengthen the relationship with Client X.

### 5.1.2 Case 2

When Client S started with the consolidation, they had a number of goals including better agreements driven by cost saving. Operations included a relatively fixed process and scope, which could be made more efficient. Not only costs should be reduced, also dissolution time needs to be higher. Therefore, it seems that there is no space for innovation within the contract in this case:

---

*“However, we want to save money and get more IT services at the same time. So productivity should be improved as stated in our contract.” C*

---

Supplier T acknowledges that there are different dimensions of innovation. When examining the business perspective of Client S, specific value propositions are already in mind. For example, the development of new products from the newest technologies and how it is going to the market. Supplier T has the knowledge how the product is created and implemented before it can be launched to the market. Therefore, the innovation comes into different categories. According to Supplier T, this can be categorized in strategy definition and/or the creation of the product. Consideration is about the used applications, platforms, technologies and the required (software) developments to make sure the product will be able to run at the best performance. On the one hand, Client S innovates their own IT systems, to make it better and customizable. This is done in collaboration with Supplier T. They want to increase trust between both parties. The executive of Supplier T mentions this:

---

*“Innovation is something that we have to define as we go together on that journey.” S*

---

On the other hand, Client S is innovating on their own way of working. The kind of innovation delivered from Supplier T depends on the project. Some cases are modular innovation, some systemic innovation. According to the interviewee of Supplier T, the majority of innovation delivered is modular innovation. He argues:

---

*“Innovation became a kind of on-going continuous process. It is ingrained, we need to constantly innovate to continue to stay relevant to the market.” S*

---

According to one of the executives of Client S, innovation and operations are somewhat separated. In the consolidation of the two major suppliers, innovation and management are both

fixed. However, the executive of Supplier T mentioned that there is a certain investment required to create innovation. Then the business case becomes the key barrier:

---

*“For all companies, we are limited to our budgets that we can spend on stuff that has not something to do with the usual processes in the business. It depends on the business case.” S*

---

### **5.1.3 Case 3**

According to the interviewee of Client Q, innovation is coming from the business and the outsourcing supplier is an enabler. Furthermore, continuous improvement is seen as innovation in this case. Client Q wants to become more flexible in acquiring IT services, from data centres to cloud environment, automation, and better procurement. The executive claims:

---

*“Innovation is coming from the business, and IT is supporting and following. In the end, it is all about the customer needs.” C*

---

To reduce the amount of storage, Supplier R is managing the cloud. Reducing storage is part of service improvement. Part of the commitment is about delivering the best and most cost effective services to Client Q. Innovation comes from shared knowledge from the large outsourcing supplier. Another part of innovation is more typical in terms of the business. The interviewee of Supplier R says Client Q need to look at itself, since an outsourcing supplier does not know the requirements:

---

*“We want to spend the money on good stuff instead of boring stuff like storage” S*

---

Supplier R suggested that the people with IT skills at Client Q is around 100 people, whereas Supplier R has a pool of 130.000 people with IT skills, including global expertise. When someone comes with or across something interesting, or some faces potential risks, it can be made available for all the technology. Therefore, they shared the shared knowledge that is being available within the global organization. According to the interviewee of Client Q, it is important to shift between up- and downscaling with the adoption of new technologies, tools, methods, trends, and competitive advantages. In this way a difference can be made relatively to your competitor. In addition, the interviewee mentioned that Client X is in the forefront of nature so far, in terms of IT. It has already a modern IT infrastructure, and unified communication and environment for example.

People have to go along with the new trends and changes. According to the executive of Client Q, companies should take distance from its own infrastructure and investment to continue innovation. He claims that:

---

*“In order to keep innovating continuously, one should not suffer from legacy, existing environment, and people.” C*

---

It always depends to the sourcing strategy and goals if an outsourcing decision is cheaper or not. According to the executive of Client Q:

---

*“I want to beware for people who are saying ‘outsourcing is cheaper’, hopefully other arguments are used.” C*

---

The executive of Client Q is convinced about the company’s capabilities of creating something big in a short time, like supporting big data projects. The process has been accelerated. This is the advantage of working with ‘on demand services’. According to Supplier R, innovation in business requires deep knowledge in the business. He stated that Supplier R do not have access or much knowledge of the business of Client Q. They do have the knowledge and the applications within IT of the business. Business value and new technology need to be aligned. The executive from Supplier R argues:

---

*“Not one of my team has been out with one of the Client Q guys to actually see what they do and how, to actually understand the business value. From our perspective, innovation can be new technology or applications of course, but it need to be aligned.” S*

---

Fixing problems and day-to-day operations are modular innovations. From a cloud perspective, it can be said there is systemic innovation. However, from the Client Q perspective it would not say that is has improved the business, since it does not enable the consulting unit to do their business better or faster. Therefore, Supplier R stated that this alignment could be improved:

---

*“In a lot of instances, Client Q does not know how to ask questions. They would not tell us the answer.” S*

---

The business has to recognize that IT is an enabler. The IT department has got to have conversations with the business, since it wants to be engaged in the business from an IT perspective.

Other executives within the company of Supplier R also recognize this. According to the interviewee of Supplier R, Client Q is not maximizing and not really benefitting from all the offered services:

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*“Whenever you dealing with subcontractor they trying to pickpocket you. But that is not always the case. The opportunity is bigger on the long-term deal. Real innovation comes from engaging with the business, to generate more together.” S*

---

---

*“Client Q can be surprised how we can look at the bigger problem and provide support. That is where the money is.” S*

---

In this case, the IT sourcing decision was not a money issue, or not a main factor. The executive of Client Q claims:

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*“In this adventure regarding outsourcing or cloud sourcing money was not the most decisive- how do I say it- argument to put ICT services into the cloud.” C*

---

What currently is limiting is the understanding of the business value. That is where the real innovation comes from. According to Supplier R, big data is something of the real future and Client Q should do something with the data they got as Supplier R can help. Again, this comes to the engagement of the business.

#### **5.1.4 Proposition 1 – Dual formal reviews**

After the examination of the innovation focus for each case, proposition 1 is tested in this section. The proposition is derived from concepts discussed in the literature review. Therefore, key observations derived from the findings are showed in Table 5 and shortly discussed. The outlined proposition for this section is:

**Proposition 1.** Innovation through outsourcing can be managed effectively using dual formal reviews in the development process, emphasizing, but not limited to, outcome controls in the review process pertaining both to the outsourcing and the innovation aspects.

<b>Concept derived from proposition</b>	<b>Aspects Case 1</b>	<b>Aspects Case 2</b>	<b>Aspects Case 3</b>
<b>Innovation view outcome aspects in the review process</b>	Agile way of working, thought leaders on IT developments	Agile way of working in described contract, DevOps, benefits need to be understood	Flexibility of contract, on-demand, trust and relationship is important
	Partnerships, trust, investing in the relationship, communication	Collaboration, trust, together on a journey, alignment with stakeholders	No investing budgets, offering the best and most cost effective, cost saving were not the main goal
	Innovation roadmap, innovation propositions	From being a control freak to uniformity in the contract, empower partners, innovation roadmap	Business reviews, reviews ideas, structure and analyse it, then move on to next stage. Interaction is needed.
<b>Contractual view outcome controls in the review process</b>	Revenues, cost saving goals	Better agreements driven by cost saving, control in detail, limited on budgets	Tracked and measured based on results and requirements, periodical evaluation
	Standardization, KPI's, SLA's	Efficiency control	Based on availability, instead of discussing the real problem
	Commercially oriented	Penalty system when not achieving requirements	SLA's, opportunities

*Table 5 Key observations, proposition 1*

It was found that none of the contracts included a clear definition about innovation. However, ‘continuous improvement’, ‘improved customer satisfaction’, ‘efficiency improvements’ and ‘new products/services’ was mentioned across the three cases. Therefore, it seemed meaningful to gather definitions of innovation in the context of outsourcing. Although there is no clear definition among the three cases, innovation can be delivered when dual formal reviews are effectively used. Evidence can be found from the wishes and needs from both parties’ interviewees, demonstrated in Table 5.

According to all interviewees of the Suppliers, they have limited knowledge from the real markets of their Clients. Therefore, service suppliers should really engage with the business of the Client to create business value. Furthermore, it seems that the outsourcing supplier wants

to be more than just an enabler. The Client should be more flexible to stimulate the supplier, and not to be too focused on control.

Furthermore, the arguments Clients gave, is about a trustworthy relationship or a partnership. One case mentioned even a ‘shared business case’. It is key to empower a partner to motivate for innovation. Involve a partner in discussions, the future roadmap and in the part of their journey. This should be ‘normal practices’ in outsourcing contracts. Every supplier has the desire to be empowered with their partner and wants to be part of future innovation roadmap. Continuous improvement is mentioned in two cases, which can be also an improvement for the Suppliers themselves to stay competitive.

The needs for innovations are expressed in different manners and the Clients use no highly complex controls of activities. Moreover, Clients want to go to ‘functional contracting’ without the strict control to enable innovation. Periodic reviews of both the contractual and innovation-driven view are continuous reminders for both the client and the outsourcing supplier. Their periodic control or evaluation has proven to have positive effects on cost and commercial objectives according to Lewis (2000). In all three cases the paradox is recognized. The combination of both contractual and innovation view is used into the portfolio of the IT outsourced contracts.

If the major goal is the creation of cost saving it can block innovation, since there is no money left for improvements and renovation. These tensions (Figure 1) are considered and mostly mentioned by all interviewees from both parties. Therefore dual formal reviews should be kept in mind. The mechanism, dual formal reviews, enables the manager to confront the paradox (Aubert et al., 2015; Lewis, 2000). Therefore it can be supported that *innovation through outsourcing can be managed effectively using dual formal reviews in the development process, emphasizing, but not limited to, outcome controls in the review process pertaining both to the outsourcing and the innovation aspects.*

A short summary of the assessment is presented in Table 6 on how the cases do or do not support the existing theory that led to this proposition.

	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>
<b>Proposition 1</b>	Support	Support	Support

*Table 6 Assessment per case, proposition 1*

## 5.2 Leven of innovation with governance

The previous sector discusses the relevance of innovation in each case. However, governance in companies includes all policies, monitoring, and control. Innovation and control are, as already mentioned, contradicting elements. A way to confront this contradiction, the governance should be in fit with the level of innovation. Therefore this section will elaborate this among the cases. In section 5.2.4 Proposition 2 is tested among the concepts derived from this mechanism

### 5.2.1 Case 1

Governance is understood as the way in which Client X and Supplier Y should regulate the organization, processes, collaborations and alignment of the work performed during the operational phase. Recently, the governance system provides a functional controlling role for Client X over Supplier Y, whereas Supplier Y performs the executive role in delivering IT services. Quality of the services, security and confidentiality, costs and other components are identified in the agreement. In addition to the steering mechanisms described in documentation, Client X has control measures to allow the supplier to adapt in a desired result or change in the delivered services. These steering mechanisms are based on KPI's, benchmarking and auditing. Reports about performance and quality of services are delivered regularly. According to one of the executives of Client X, the control protocol described in the contract has changed:

---

*“From Client X, more flexibility has been given to Supplier Y.” C*

---

Besides, the supporting role of Supplier Y and its delivered services, Client X expects consultancy as well. One of the executives argues:

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*“We contract with a technology partner, which means they have the job of bringing technology in the house and give us advice on how to optimize.” C*

---

The term ‘functional contracting’ is used in the contract, where Supplier Y can interpret and deliver its services by themselves instead of the high control of Client X. Another executive of Client X admitted:

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*“What you see in the current contract is that we put the ‘how’ at Supplier Y, and the ‘what’ is at us.” C*

---

---

*“We have to let go and Supplier Y knows what they should provide.” C*

---

According to Client X, it is important to monitor the delivered work from Supplier Y, since the company pays for the IT services and want to save costs. However, together they are looking for better process management and communication. The argument of the interviewee of Client X confirmed this:

---

*“When one decide to outsource IT, one should meet the standards as much as possible to save costs. A financial business case has been made in this case” C*

---

Several innovation proposals are created each year to enable innovation within the governance. Another possibility could be the structural sessions with Supplier Y, which can create cooperation and more flexibility.

### **5.2.2 Case 2**

According to Supplier T, the key success factor is the alignment within the stakeholders of Client S and Supplier T. Ideas from the outsourcing supplier has to be aligned with the client as well as the benefits from innovation. According to Supplier T:

---

*“We can have a brilliant idea but it has to be aligned with Client S, they understand that as well. The benefits should be understood from what is coming from innovation, and what is in it for both involved parties.” S*

---

Supplier T confirmed that specific KPI's in the contract are linked to different categories for innovation, operational performance, time to market, or delivery. The contract not describes which innovation Supplier T will do for Client S. However, the contract states the benefits delivered for Client S, through the innovation of Supplier T. From these benefits innovation is delivered. Furthermore, Client S is used to have detailed control over their service suppliers. However, the company does not want to say the 'how' in the contract anymore, but only want to tell the 'what'. According to Client T, the responsibility belongs to the Supplier T since they are the experts. This will provide some flexibility for Supplier T.

Client S is cost driven thus costs should be reduced. If there is a desire to involve in a partnership in the contract, both parties should have a win-win situation and trust is an

important connection. Therefore, Client S need to have a new way of working and have to release the details in contracting to really partner up with Supplier T:

---

*“Now, we no longer say ‘how’ to do it, but ‘what’ to do. That is actually the responsibility of the outsourcing supplier, because they are the experts.” C*

---

According to Supplier T, Client S has empowered the partners of Supplier T and make them part of the future thinking and journey. This can be stimulation for involving in innovation for the supplier. The executive of Supplier T claims:

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*“One of the key factors to motivate Supplier into innovation, is to empower your partner, involve them in discussions, future roadmaps, make them part of the journey.” S*

---

### **5.2.3 Case 3**

Within the policies of the consultancy company, Client Q, is described that Supplier R should undertake knowledge transfer activities to take on the IT services. The solution approach is explained as an iterative and incremental process of the transition to the cloud. Client Q uses a framework as a subcontract from the global company. Contract management together with IT manages this. Together with the managers of other departments of the business units, the future is reviewed in several meetings. Supplier R thinks innovation can be managed by collecting information of payments and data to forecast revenue and costs. Then you can invest or save, optimize, and maximize the business by analyzing this data. Secondly, innovation can be managed when it fits the business value for Client Q.

According to the interviewee of Client Q, there is a lot of control in the contract for checking the deliverables. However, since the company is acquiring services on demand there seems to be a lot of flexibility. Every month, a check is done if the services are equal to the requirements and budget. Billing reports are reported to every business unit to calculate which costs are incurred per business unit. According to the interviewee of Supplier R, the contract should be managed by having business reviews, whether it would be contract or business reviews.

---

*“There is a framework of cross-references in our governance.” C*

---

However, this is focused on the services deriving from SLA’s, what is in the pipeline, and what are the opportunities. This is discussed together, and Supplier R is reacting to these actions. However, according to Supplier R, they never have conversations with senior business people on maximizing data or about the latest technology.

---

*“All we can do is tell you from an innovation perspective, what is available, how you attack it and how to implement his. It never comes down to the real problem.” S*

---

#### **5.2.4 Proposition 2 – Matching level of innovation with governance**

The establishment of policies and monitoring among all cases is discussed in the previous sections. The combination of governance together with described level of innovation focus for each case is also examined. Proposition 2 is derived from concepts discussed in the literature review. Therefore, key observations derived from the findings are showed in Table 7 and shortly interpreted and discussed. The outlined proposition for this section is:

**Proposition 2.** When innovation done through outsourcing has a systemic element, contractual view should be used to define how to integrate the innovation within the organization. Alternatively, modular innovation done through outsourcing should downplay contractual constraints and emphasize an innovation-driven view to ensure that innovation occurs.

<b>Concept derived from proposition</b>	<b>Aspects Case 1</b>	<b>Aspects Case 2</b>	<b>Aspects Case 3</b>
<b>Systemic innovation</b>	N/A	Consolidation of suppliers	Going to Infrastructure as a Service
<b>Contractual view</b>	Cost saving, finance benchmark, priorities, time	Cost saving as a basis, no transparency from both sides, business case becomes the key barrier	When costs increase it should be supported when it is creating more money, and efficiency

	KPI's, control on deliverables	KPI's, Control, based on detail, trying to create partnership however still hard to create trust. Penalty system	
<b>Modular innovation</b>	Expand on the basis, change in the way of working, modernizing	Change in the way of working, creating better customer satisfaction	Cloud sourcing, upshifting and downshifting, day to day operations
	Transferring IT services, new IT landscape, technical application management	Consolidation of suppliers, application development and underlying infrastructure	Infrastructure as a Service to Software as a Service, innovation of services itself with support
	Process automation	On-going process ingrained in the business, automation	Support leadership and business
<b>Innovation driven view</b>	Rewards & incentives for innovation as an opportunity	Responsibility for innovation from expertise of outsourcing suppliers. Rewards & incentives for innovation as an opportunity	End-to-end perspective, continuous improvement from process
	Functional contracting, creating mutual definition of innovation	Contract based on better collaboration, however still hard to give each other space	Shared knowledge, keep up with global trends, adoption of new methods
		From contracted benefits innovation is delivered	Innovation budgets

*Table 7 Key observations, proposition 2*

As discussed in the literature review, innovation can be differentiated as systemic or modular innovation. Focusing on the core business of the client is one of the main reasons for outsourcing non-core business, showed in Table 7. However, modular innovation is more likely to be outsourced than systemic innovation (Aubert et al., 2015). Products tend to become more modular over time. Systemic innovation is much more difficult to introduce since it need to create a new standard which can even take more than 50 years. In addition, all three cases innovation delivered is perceived more as modular innovation. Therefore the study does not

have the required evidence to support: *when innovation done through outsourcing has a systemic element, contractual view should be used to define how to integrate the innovation within the organization.*

This is in agreement with the suggested literature where only modular innovations can be successfully developed using outsourcing arrangements, and not systemic (Aubert et al., 2015).

Besides, contractual view is still used in the relationship of all three cases. Mutual understanding of innovation should be discussed and fixed in the contract (Lacity, Solomon, Yan, & Willcocks, 2011).

Time, money, quality are still major constraints of the client. Therefore, an innovation driven view is hard to establish (Weeks & Feeny, 2008). To release this, contractual constraints should be downplayed and enable innovation mentioned by some of the client interviewees. Most of the interviewees of the client mentioned the fact for ‘functional contracting’ and ‘to let it go’. This is remarkable since it is exactly mentioned in two cases. Even ‘partnerships’ and ‘trust’ is mentioned a lot between both parties. The cases obtain a clear expression of the tensions associated with innovation through outsourcing. Governance should focus on contractual concerns with respect to global integration, but need to focus on innovation-driven view with respect to the development of modular innovation. Therefore, this mechanism enables managers to transcend the paradox. When innovation is of concern for the company, it should be implemented with an innovation driven view and downplay contractual demands against suppliers. It offers a way to think paradoxically. Introducing different level of innovations- modular innovation- are able to reframe the problem in a way that shows the complementarity of the two sets of tensions (Lewis, 2000). Based on the key observations it seems plausible that support is given for: *modular innovation done through outsourcing should downplay contractual constraints and emphasize an innovation-driven view to ensure that innovation occurs.*

A short summary of the assessment is presented in Table 8 on how the cases do or do not support the existing theory that led to this proposition.

	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>
<b>Proposition 2</b>	Partial support	Partial support	Partial support

*Table 8 Assessment per case, proposition 2*

### 5.3 Decision making

The essence of this section is to the role of individuals involved in managing the innovation through outsourcing. This mechanisms is derived from the literature review. Evidence among interviewees and case discussions will be described. Furthermore, key observations derived from the propositions can be found later in this section. Propositions 3 is tested and discussed in section 5.3.4, whereas proposition 4 can be found in section 5.3.5.

#### 5.3.1 Case 1

From useful materials of interviews it is noticed that both parties acknowledge communication among individuals. This is an essential prerequisite for good collaboration. To ensure that communication and decision-making about IT services is effective, Client X wants to establish structured consultation with Supplier Y at strategic, tactical and operational level. In addition, this consultation is aimed at improving cooperation with Supplier Y and the quality of IT services. Objectives, subjects, frequency, participants, and decision are discussed by consultation. Strategic consultation is done at executive level. To ensure the goals of Client X and Supplier Y are met, it is essential to build a good relationship. The contract describes the goals of tactical consultation, which are: rating of service portfolio, communication of planned and running projects, and ensuring conditions for smooth running of the operational processes remain present. Operational consultation has the goal to ensure the continuity of the IT services and to manage the day-to-day processes. Both parties are responsible for these developments. With the division of management roles, Client X is still having a lot of control, but this is changing. Managers need to get used to this, claims one of the executives of Client X:

---

*“As management, we need to make a switch. It feels familiar to control everything by yourself.” C*

---

Managers should understand the nature of the different demands between both parties. The interviewee of Client X recognizes this:

---

*“Needs and wants need to be understood from both sides.” C*

---

Client X wants to have a trusted relationship with Supplier Y and can limit the degree of control within the contract. Working together means trusting each other as well. According to the executive, Client X is a customer for Supplier Y where they need to get used to it. Client X is not looking for the cheapest option, he claims:

---

*“We understand we will get better services when Supplier Y gets what it deserves.” C*

---

In addition, he also stated that innovation could be stimulated when there is a partnership. However, to allow this partnership is difficult. The executive of Client X claims:

---

*“It is all about trust. Supplier Y should then be part of our business and thus we should being more transparent about strategy to have direct links between Supplier Y and business parties.” C*

---

Furthermore, he mentioned that Supplier Y should not be too commercially involved. One could come with innovation, but there still need to be an alignment with the business and support. This is the difference between the margins wanted by Supplier Y and the interests of Client X.

---

*“Supplier Y should refrain from begin commercial.” C*

---

The executive mentioned another interesting option in the decision making process: to reward Supplier X from innovation proposals, which have led to higher quality or cost saving. This is a new suggestion and not yet developed in the contract. Supplier Y supports and implements the wishes of Client X, for example with process and systems automation:

---

*“What happens at the bottom is technique, what it shows is business value” C*

---

The suggestion of Client X contains a certain agreement between both parties to give a percentage of the delivered cost saving from innovation. This can fix in the contract to stimulate innovation for example. One of the executives stated that Client X is looking for different and better processes in collaboration with Supplier Y. With this collaboration, a new tooling system can be created and communication will be improved.

### 5.3.2 Case 2

Decision-making is broken down into different levels: from strategy to day-to-day operations. Decision makers may differ; whereas responsibilities can be completely different as well, mentioned by the interviewee of Supplier T. Tensions arise within the collaboration with companies and its outsourcing suppliers. According to Client S, service suppliers should be rewarded to increase flexibility and ideas. Both parties always have to hide something, especially when it comes to money and margins. Although the intention is to become closer together, it is still difficult to achieve this. To accept the nature of the tensions, both parties need to have an understanding of the needs and the direction of where the business is looking for, according to the executive of Supplier T. To get an alignment everybody needs to understand both the requirements and the benefits for each stakeholder. In general, Supplier T has a fair rhythm in their engagement with Client S, stated by the executive of Client S. Furthermore; he discussed the concept about vested outsourcing, which is a theory about the collaboration between different models of both parties to create a win-win situation. Together companies and its service suppliers can increase the business value.

Outsourcing suppliers can see global technological trends and bring the best practices to their clients. An interviewee of Supplier T stated that they look at the current landscape of Client S, where they want to go, and what innovation they are looking for. Also, the restrictions and difficulties are evaluated in achieving that innovation. Thereafter, Supplier T comes up with ideas that enable innovation with a future vision for both parties.

Decision-making has to happen from case by case basis. This is based on reviews from both sides. Specific demand of the business is depending on the business case and time. The decision to invest will be taken by the Client S. Supplier T will take the decision how it will be executed.

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*“The client empowers the outsourcing supplier on what kind of people or skills are engaged in the project itself. Therefore the decision making is divided in multiple layers.” S*

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### 5.3.3 Case 3

According to the executive of Supplier R, the division of management can be improved to enable innovation. This project has just begun, and still each business unit can learn. The executive of Supplier R argues that there should be a senior representative of each business unit. Furthermore, he claims:

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*“Their job is to come up and to identify what the real challenges are in the business. What is really preventing them from maximizing the opportunity?” S*

---

According to the interviewee of Client Q, IT is not a cost centre anymore. Everything is possible when investments can be justified such as with new functionalities or changes. Furthermore, he said:

Client Q argues that individuals should not work in fixed patterns. The waiting time of IT services has decreased and the business units do not have to wait for months. The decision-making has become more flexible. According to the executive of Supplier R, job-rotating roles could fit the management to enable innovation. First, the problem needs to be captured, and then you got the IT focus. Furthermore, he argues that:

---

*“I think we can support innovation without all kinds of budget discussions - and believe me- this is quite difficult in ‘enterprise land’.” C*

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*“Issues in the business should be communicated to think together when Client Q ask the right questions.” S*

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According to the expert interviewee, suppliers need to consciously engage in the innovation process and manage it towards the client. The expectation should be that renewal or improvement can improve the business. In this way, suppliers can make an increase in value for their clients. Furthermore, he said:

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*“Innovation should not serve for the short-run, it should serve for the long-run.” Expert*

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Innovation starts with the strategy from both sides, from the client and the supplier. From the client this strategy contains business innovation, in technology this shifts to the supplier. The impact of implementing new ideas or technologies depends on the type of contract and pro-activity of the supplier.

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*“I have often found that if a contract is concluded purely from cost savings, they will squeeze a supplier completely. Then, the supplier wants nothing more than strictly necessary and does not come with improvements that can cannibalise with own services.” Expert*

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### 5.3.4 Proposition 3 - Dynamic decision making

The role of individuals to manage innovation in IT outsourcing is discussed among the three cases. Proposition 3 is derived from concepts discussed in the literature review. This can include the alternating roles among responsibilities. Therefore, key observations derived from the findings are showed in Table 9 and shortly interpreted and discussed. The outlined proposition for this section is:

**Proposition 3.** For innovation through outsourcing contracts, alternating the roles of the person responsible for contractual control and the person responsible for innovation, would enable the consideration of paradoxical demands.

<b>Concept derived from proposition</b>	<b>Aspects Case 1</b>	<b>Aspects Case 2</b>	<b>Aspects Case 3</b>
<b>Alternating roles in responsibilities</b>	Knowledge transfer	Working with high variety of people, multiple layers in decision making	Real innovation comes from understanding of the business value
	Strategic consultation, rotate with supplier to understand	IT need conversations and alignment with business	Future thinking
	Understanding of technique and business language	It is hard to talk and tackle each other	Rotating job roles to capture the problem

	Stimulation of supplier to innovate by offering less control and functional contracting	Understanding needs and wants from both parties,	Create awareness around costs, agreements on costs within requirements for on-demand services
<b>Consideration of paradoxical demands</b>	Flexibility vs. control, standardization vs. innovation.	DevOps is an interesting development	Forecasting data to save, invest, optimize and maximize the business
	Collaboration	Contracting should be adjusted	Communicate issues and challenges together
	Get used to release control	One should know their benefits from innovation.	Flexibility of contracting

*Table 9 Key observations, proposition 3*

This proposition deals with the individual roles and structures in the governance process to enable innovation. Individuals could be responsible together for contractual control and innovation driven aspects. This proposition highlights the consideration of paradoxical demands, which means it can be a way to accept the paradox (Lewis, 2000), and be aware of tensions without actually confronting them.

Executives already consider paradoxical demands, since they know or engage in the different wants and needs. Margins at the outsourcing suppliers and cost saving at its clients need to be recognized. They never tell the whole truth about their desires. Furthermore, Table 9 demonstrates in its key observations that both parties are not always heard. Alternating the roles helps managers to be aware of the tensions and is supported by the fact of the rotation within strategic consultation. Executives are looking for improvements in the way of working, such as continuous improvement. Within an agile environment a team can adjust and adapt (Plugge, Bouwman, & Molina-castillo, 2013; Smith & Lewis, 2011).

Flexibility can be increased and awareness is created simultaneously. Furthermore, the desire of the outsourcing supplier for having innovation roadmaps of their clients can create the alignment between both parties, which seems to be an alternating in their roles as well. Observations and interpretations of the evidence is discussed among the cases; therefore, it is

supported that *alternating the roles of the person responsible for contractual control and the person responsible for innovation, would enable the consideration of paradoxical demands.*

A short summary of the assessment is presented in Table 10 on how the cases do or do not support the existing theory that led to this proposition.

	Case 1	Case 2	Case 3
<b>Proposition 3</b>	Support	Support	Support

*Table 10 Assessment per case, proposition 3*

### 5.3.5 Proposition 4 – Extreme contracting

Another proposition was arrived from reviewing individual roles. Proposition 4 is derived from concepts discussed in the literature review, and related to the three cases. The concepts is extreme contracting, meaning the use of a pair of managers within a team, using an innovation manager and contractual manager respectively. For this mechanism, key observations derived from the findings are showed in Table 11, and shortly interpreted and discussed. The outlined proposition for this section is:

**Proposition 4.** For innovation through outsourcing contracts, “extreme contracting” using a pair of contract managers (one responsible for innovation and one for contractual control) would enable the consideration of paradoxical demands.

Concept derived from proposition	Aspects Case 1	Aspects Case 2	Aspects Case 3
<b>Pair of managers</b>	Mirrored situation, so no paired situation.	Mutual responsibilities and value tracking initiatives	Alignment of technology and business value
	Technical consultation to increase each other’s business	Together responsible for achieving initiatives, empowering your partner, relationship is built on trust	Meeting with Supplier and the business people, managed by contract management with IT
	Multidisciplinary teams apart from outsourcing supplier	Client says ‘what’ to do and supplier knows	Framework of cross linkages between different departments

		'how', functional contracting	
<b>Consideration of paradoxical demands</b>	Searching for a mix together with different departments	Key success factor is the alignments with stakeholders/partners	Maximizing data, attacking the problem
	Functional and flexible contracting	Creating a model to achieve goals together (win-win) and create business value	Not working in fixed patterns anymore

*Table 11 Key observations, proposition 4*

With extreme contracting, each person should either be responsible for contractual aspects, or innovation aspects. However, according to the evidence of the interviewees, executives already consider paradoxical demands. IT trends are recognized, but it always counts on the business needs.

According to the interviewees, the multidisciplinary teams or managers do not work together with their Suppliers. This is not seen a use of pair of managers working together. In addition, mirrored situations of the service management are mentioned as well, showed in Table 11. Different innovation sessions are held, but the Supplier is not always heard.

Therefore, it does not show evidence for pairing of managers, since most situations are separated, according to interviewees. Together they are responsible for creating a partnership and achieve their goals. As for a pair of managers this is more confrontation of the paradox than only acceptance (as dynamic decision making). Managers should play along or confront each other perspective (Lewis, 2000).

There is weak refutation to say: *innovation through outsourcing contracts, "extreme contracting" using a pair of contract managers (one responsible for innovation and one for contractual control) would enable the consideration of paradoxical demands.*

A short summary of the assessment is presented in Table 12 on how the cases do or do not support the existing theory that led to this proposition.

	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>
<b>Proposition 4</b>	Weak refutation	Weak refutation	Weak refutation

*Table 12 Assessment per case, proposition 4*

## **5.4. Ambidexterity**

The essence of this section is the discussion of ambidexterity among organizational structure in innovation IT outsourcing. This is the challenge of both managing exploitation and exploration of a company, ensuring both growth and exploit current ideas (March, 1991). First of all, research shows weak evidence for ambidexterity since it is hard discuss organizational structure among independent individuals of the companies. Some concepts are not applicable, which is explained in Section 5.4.5.

### **5.4.1 Case 1**

Client X is trying to engage in ambidexterity, being able of being both adaptable and efficient in a changing environment. According to the interviewee of Client X, there is no ideal organizational structure. It is argued that when having a partnership one can stimulate innovation. An organizational alignment needs to be obtained between efficiency demands for the business while simultaneously being adaptive to changing demands. Client X and Supplier Y still need to find a balance of management. In a high competitive and changing environment, balanced structures may be better prepared to deal with the constant alignment (Raisch & Birkinshaw, 2008).

Client X has multidisciplinary teams to create innovation for their business as well as contractual management with the supplier. This is separated among different departments within the organization. This in line with the dual structure and strategies to react to changes in structural ambidexterity.

The need for innovation is clearly expressed by Client X, especially in the area of new digital services to meet the changing needs of its customers. However, there is little evidence about satisfying this innovation need was an important objective of the IT outsourcing project.

### **5.4.2 Case 2**

A balance needs to be obtained for the organization's exploitation and exploration. At Client S, agile way of working has now been implemented quite far. They are also working with DevOps where pilots are running. This is the exploratory side of the company. Contracts with the Supplier T should therefore be modified to increase these concepts in their collaboration. Firstly, the impact should be examined since the responsibilities can be different when working

with DevOps. A dual structure can be implemented for both exploration and exploitation, from innovation to control. Client S wants to implement a whole new contract in a different way. Now, there are a lot of details and KPI's stated in the contract. However, Client S wants to have more flexibility in the contract and need to reduce this control. In addition, Client S aims to reward suppliers, for example in a part of the revenue from the cost reduction that is achieved. In addition, Client S wishes to let go the standardization, argumentation and control. In this way they want to create more flexibility. On the other hand, Client S is a shrinking organization, and costs still need to be saved. Therefore, it would be hard to give these rewards. The executive of Client S claims:

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*“This also suggested that we, as Client S, have been a control freak, also in designing the contract.” C*

---

Client S is a complex organization, but now trying to simplify. According to Client S, outsourcing suppliers are more focused on their own efficiency and they are not always looking for their client's business value. Therefore, partnering could be difficult:

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*“Actually, we need to have a kind of mechanism with a partnership that will generate the right incentives.”*  
C

---

### **5.4.3 Case 3**

Together with the outsourcing supplier, Client Q should look at new trends and services to change continuously. This is part of the exploration within the company. Continuous improvement and following trends of the market can increase the business value of Client Q. Supplier R continues with offering new services, and working more efficiently. This is a process where both parties can increase in their maturity level. Review business ideas to react changing needs and demands. Also, the impact of staff and security need to be checked all the time. Therefore, interaction within the project is needed, according the interviewee of Supplier R. This is part of the alignment of the business and demands of Client Q. According to the interviewee of Client Q, Supplier R could even react faster to the changing environment.

However, the supplier services should still fit the client business model. A quote from the interviewee of Client Q:

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*“On the other hand, other outsourcing suppliers may supersede in delivering IT services, which does not (yet) fit into our business model.” C*

---

IT is facilitating innovation by making the infrastructure flexible, affordable, and controllable. Therefore leadership can be supported and so the business. So, according to the interviewee of Client Q, it is about innovation from the services and the support of innovation from the business. Furthermore, he argues that:

---

*“I think innovation on the one hand, and outsourcing on the other hand, are not mutually exclusive.” C*

---

However, According to the executive of Supplier R, people need to look at the big opportunities and still lessons to be learned. He argues that:

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*“You need a Chief Business Officer as well as the Chief Technology Officer, and think about the long term perspective together.” S*

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*“Innovation is a belief. If you do not think innovation can bring you anything, it will not give you anything.”  
Expert*

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#### **5.4.4 Proposition 5 – Structural ambidexterity**

The role of organizational structure in innovation in IT outsourcing is weakly discussed among the three cases. Proposition 5 is derived from concepts discussed in the literature review. Which includes the structural ambidexterity. Therefore, some key observations derived from the findings are showed in Table 13 and shortly interpreted and discussed among each case. The outlined proposition for this section is:

**Proposition 5.** Innovation through outsourcing could be managed effectively through structural ambidexterity, using two teams, to focus respectively on efficiency and adaptability/flexibility aspects of the innovation through outsourcing arrangement.

<b>Concept derived from proposition</b>	<b>Aspects Case 1</b>	<b>Aspects Case 2</b>	<b>Aspects Case 3</b>
<b>Using two teams</b>	Within silos it is hard to work together	Operation and innovation is separated	Business has to recognize that IT is an enabler, but also for support
	Multidisciplinary teams not working together with supplier	Silos have their own piece of information	Pair of managers from business and technology to think about the long-term perspective
	Increase contact with business managers	Empower partners and make them part of that future thinking	Identifying challenges in the business
<b>Outcome suggestions</b>	Both managing the outsourcing contract and discovery process	Wishes to collaborate with the specialist	Look at the bigger problem and bigger opportunities together
	Collaboration with two teams can create a new tooling that enable innovation		Senior representatives of each business unit, or departments should think about innovation
	Collection of specialized niche parties		

*Table 13 Key observations, proposition 5*

Another method to dive into innovation in IT outsourcing is by examining exploitation and exploration in organizations. Whereas exploitation includes modifications and improvements of activities, and exploration includes the development of creating something new. It can be seen as incremental and radical innovation respectively.

This proposition deals with the structure of the organizations itself and how it reacts to changing demands. In all three cases the alignment between business innovation and efficient demands is recognized. Only the third case give support in their evidence for using two team. The interviewees of both parties want to look together to the bigger problem and each

representative should have a focus in the outsourcing arrangement. Dual structure should reflect the tensions presented earlier and be present in the decision making process.

Most of the evidence tend to go to a partnership or collaboration, rather than using teams of both contractual and innovation driven managers. Dual parts of exploitation and exploration are recognized and proposed by the interviewees, but only applied in the third case. Not using two teams, however, suggestions from interviewees show a high relevance for this mechanism. Therefore, partial support can be given to: *Innovation through outsourcing could be managed effectively through structural ambidexterity, using two teams, to focus respectively on efficiency and adaptability/flexibility aspects of the innovation through outsourcing arrangement.*

A short summary of the assessment is presented in Table 14 on how the cases do or do not support the existing theory that led to this proposition.

	Case 1	Case 2	Case 3
<b>Proposition 5</b>	Weak support	Weak support	Partial support

*Table 14 Assessment per case, proposition 5*

#### 5.4.5 Proposition 6 – Temporal ambidexterity

Another proposition was arrived from reviewing organizational structures. Proposition 6 is derived from concepts discussed in the literature review, and related to the outcomes of the case findings. However, it showed weak evidence, since it is lacking qualitative data to draw conclusions. Still some key observations derived from the findings are showed in Table 15, however, there is not many information available. The outlined proposition for this section is:

**Proposition 6.** Innovations through outsourcing could be achieved through temporal ambidexterity by oscillating over time between operational efficiency and adaptability/flexibility in contracts in the outsourcing arrangement.

<b>Concept derived from proposition</b>	<b>Aspects Case 1</b>	<b>Aspects Case 2</b>	<b>Aspects Case 3</b>
<b>Oscillating between structures</b>	N/A	Not considered as an enabler, or costs	N/A
<b>Outcome suggestions</b>	N/A	Bottom line is IT cost saving, but willing to create a partnership	N/A

*Table 15 Key observations, proposition 6*

Only Case 2 gives some weak evidence from key observations for temporal ambidexterity, showed in Table 15, since it is changing its structure. But it can be simply said that organizations' structures fluctuate once at a time, from innovation or contract performance. It is thereby also not mentioned, not even considered, in the suggestions from interviewees. Therefore, there is not enough evidence to really show that structural ambidexterity can achieve innovation in outsourcing contracts. Therefore, further research should look deeper into the organizational structure between companies and its outsourcing suppliers. Temporal ambidexterity does not fit in the system of partnership and trust, since oscillating changes over time. It seem to be a wish to go together 'on the journey' rather than changing the organizational structure. Ambidextrous organizations still can be way to accept the paradox (Lewis, 2000), but not a way to confront it, especially with temporal ambidexterity.

From case interviews it was therefore concluded that there is weak refutation for: *Innovations through outsourcing could be achieved through temporal ambidexterity by oscillating over time between operational efficiency and adaptability/flexibility in the outsourcing arrangement.*

A short summary of the assessment is presented in Table 16 on how the cases do or do not support the existing theory that led to this proposition.

	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>
<b>Proposition 6</b>	Weak refutation	Weak refutation	Weak refutation

*Table 16 Assessment per case, proposition 6*

## 5.5 Summary of propositions

Table 17 summarizes the discussion where a qualitative assessment is made of the propositions for each case.

	<b>P1. Dual formal reviews</b>	<b>P2. Matching level of innovation with governance</b>	<b>P3. Dynamic decision making</b>	<b>P4. Extreme contracting</b>	<b>P5. Structural Ambidexte rity</b>	<b>P6. Temporal Ambidexte rity</b>
<b>Case 1</b>	Support	Partial support	Support	Weak Refutation	Weak support	Weak refutation
<b>Case 2</b>	Support	Partial support	Support	Weak refutation	Weak support	Weak refutation
<b>Case 3</b>	Support	Partial support	Support	Weak refutation	Partial support	Weak refutation

*Table 17 Summary of analytical propositions*

The propositions are interconnected with the mechanisms discussed in the conceptual model. It depends on several elements whether innovation through outsourcing can be managed. Some aspects can be negative and some aspects can be positive. Propositions 1, 2 and 3 are generally supported. The adjective weak is mentioned since there is no specific example of evidence to support or refute the proposition, for propositions 4, 5, 6. However, proposition 5 does have a slant towards support.

## 5.6 Applicability of the framework

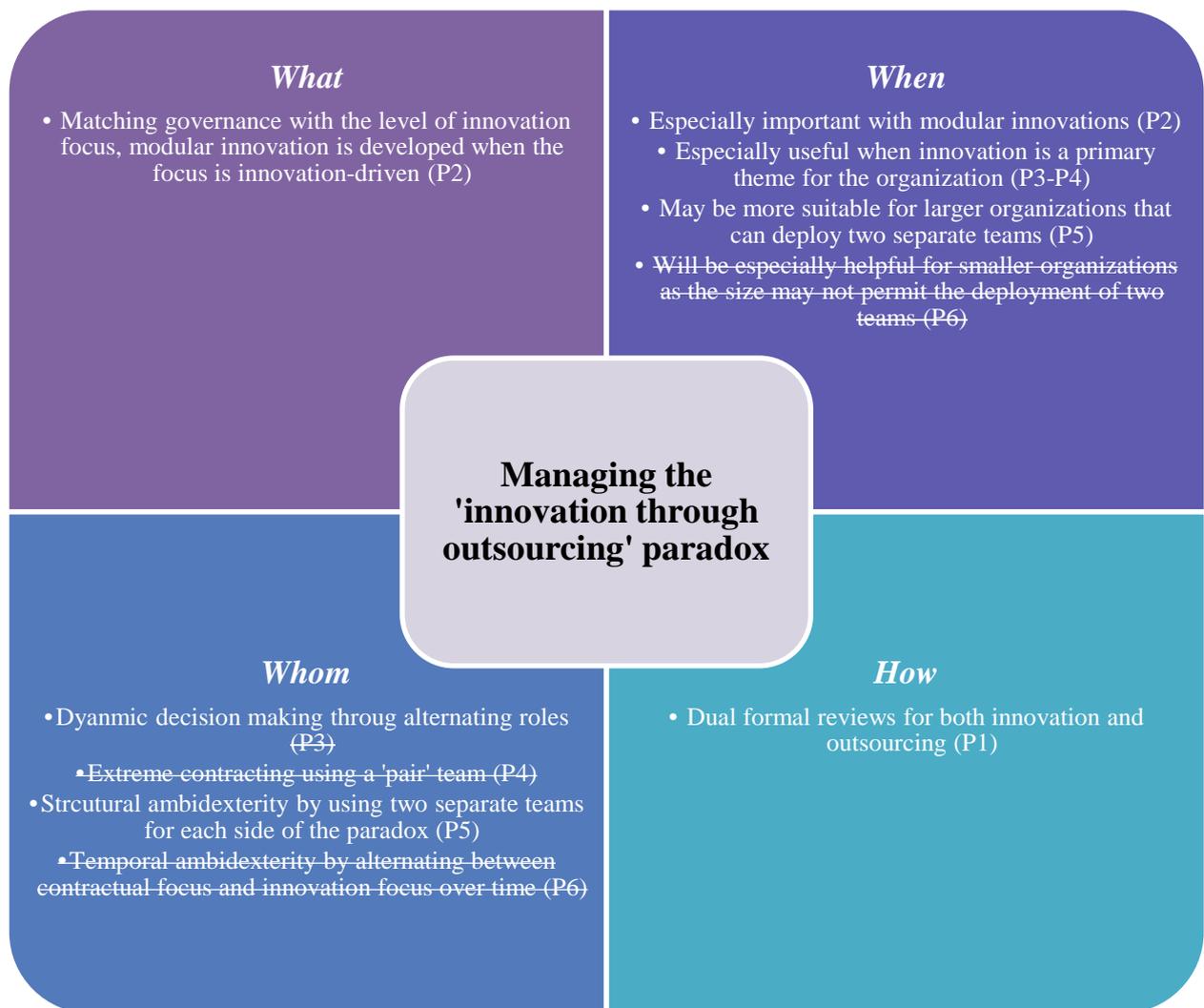
The interconnections of mechanisms and the applicability of the framework are discussed in this section. It contains the dimensions of what, how, by whom, and when innovation through IT outsourcing can be managed. Innovation can be managed among the mechanisms and its interconnections. The framework discussed in Chapter 2 is therefore refined, which is presented in Figure 2. The architecture brings together dimensions of ‘what’, ‘how’, ‘when’, ‘whom’.

The *what* concerns the level of innovation matching the governance. Modular innovation can be successfully implemented by using IT outsourcing contracts, when the focus is on

innovation-driven considerations. In the cases the term 'functional contracting' is mentioned several times, which presents a flexible type of contracting and downplays contractual control. The *how* concerns the dual formal reviews, which should be conducted to consider each perspective of both contractual and innovation view in the governance. Cases presented the tensions and contrasting demands are considered between both parties.

The *when* Innovation should be the major criteria in the outsourcing strategy especially with modular innovation. Together with cost saving, innovation might not be developed. It should be interconnected. Furthermore, part of the governance is the necessity to define innovation between both parties and make an innovation budget available.

By the *whom* the structure and roles connected to innovation implementation, at both individual and organizational level. It is supported by dynamic decision making (P3), emphasizing the alternating roles within the governance process to increase innovation skills. The organization structure itself has provided weak evidence (P5-P6), and therefore not sufficient information to draw conclusions. This is also the case in extreme contracting (P4). Further research should look deeper into these constructs to obtain evidence.



*Figure 2 Refinement of interconnections between mechanisms*

Innovation has to be a major concern of the company. It is obvious that previous literature used economic theories. However, when looking at innovation these variables are not suitable. IT outsourcing suppliers will remain an essential source of knowledge and expertise for their clients. Therefore it is still important to know how to align these capabilities in a way to innovate.

## 6. Conclusion

Today, everything needs to be better, faster, and with higher quality. Changing environments can offer possibilities for innovation. However, when companies look at their outsourcing suppliers, most of the IT outsourcing contract management seems to deter innovation. On the one hand, innovation is caused by opening paths for flexibility, risk taking, and adaptability. On the other hand, outsourcing contracts are connected with uncertainty avoidance, detailed contracts, and measurability. Trying innovation through outsourcing faces opposing sets of constraints, which is seen as a paradox. Adequately managing handling paradoxes can improve the long-term success for companies.

Hardly any research has focused on innovation in IT outsourcing. Moreover, little attention is given to the practicalities involved in the contractual aspects of outsourcing and collaboration with outsourcing suppliers (Aubert et al., 2015) To bridge this research gap, empirical research is conducted how innovation through outsourcing can be understood and managed in an IT outsourcing environment. Qualitative case study research is done to examine the effects and developments along the cases. This is focused on dual formal reviews, matching level of innovation with governance, dynamic decision making & extreme contracting, and ambidexterity. The cases offer detailed insights into situations where potential innovation in ITO has been developed in real practice. In this way, the applicability of the theoretical framework and mechanisms in practice are tested. The contribution of this study is the recognition and proof of the existence of the identified paradox. Furthermore, the mechanisms and its attributes offer new ways in understanding how to manage innovation in IT outsourcing. None of these discussed mechanisms are easy to implement in terms of enabling innovation. Conclusions were drawn based on the data collected from interviews and documentation. The four mechanisms are important in the relationship between companies and its outsourcing suppliers to enable innovation. All cases addressed and considered the contractual elements and innovation outcomes from both client and service provide. However, a definition of innovation should be created between both parties. The other propositions show the point of the complex relationship between IT outsourcing and innovation capabilities. Dual formal reviews and dynamic decision making were supported in managing innovation in IT outsourcing contracts, since recurring patterns were found. The level of innovation should match with the governance, however, it seems to be that systemic innovation cannot be enabled in outsourcing contracts. Unfortunately, the concept of ambidexterity and extreme contracting showed weak evidence to reach a conclusion.

## **6.1 Research limitations and suggestions for further research**

Paradoxes are not easy to solve and the outcomes are not simple. The nature of the term innovation has changed and evolved over time, and need to be refined into a clear definition. Further investigating of levels of innovations together with contracting should be empirically tested. In addition, due to the weak evidence, the maturity and ambidexterity of organizations need to be further investigated. Due to time constraints, a limited number of executives is interviewed and outcomes can be therefore biased or commercially interpreted. In addition, this research has examined the individual role rather than the organizational or team role within the companies' interviewees. Therefore, a better-interconnected framework can be created when diving deeper into the organizational structure.

Value is dynamic and changes overtime; companies should revisit its value generated from outsourcing relationships. Therefore, further research is needed into organization for base lining the definition of 'innovation in outsourcing'. Future research should consider complex models and theories to take into account any facets for innovation. Still paradoxical demands need to be considered. These mechanisms offer new paths for further research in IT outsourcing. Other interesting avenues raised in developing this research are: cultural differences between outsourcing supplier and the company, type of innovation affecting the mechanisms, and difference in organizational structure, such as maturity and size.

This study is one of the first attempt to empirically test the innovation through outsourcing paradox. Results are promising among the mechanisms and therefore this study offers interesting avenues for IT outsourcing research and practicalities. In addition, it is of interest to both practioners and researches in business and management disciplines.

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## Appendix I – Overview of interviewees

<b>Perspective</b>	<b>Case ID</b>	<b>Job title</b>
Client X	1X01	Senior buyer & contract manager
Client X	1X02	Manager outsourcing contracting IT service management
Supplier Y	1Y01	Client Executive
Client S	2S01	Project Manager
Supplier T	2T01	Business Account Manager
Supplier T	2T02	Head of Communication & Technology Business Consulting
Client Q	3Q01	Chief innovation officer IT
Client Q	3Q02	Engagement manager
Supplier R	3R01	Account Executive
Expert	EX01	Associate director & senior research fellow

## **Appendix II – Semi-structured interview guideline**

Can you please introduce yourself?

What is your position? How long do you work here?

Can you give a short case summary in about 10 sentences?

What is your relation and position to *Case*?

What kind of IT services are outsourced?

What is the *value supplier* delivers to *client* in *case*, and what is the potential value for *client*?

### **Innovation (level)**

What is innovation? And specifically for ITO?

What kind of innovations is of value for *Client* in the *Case*? How is this in reality?

How would you define innovation, in the *case*?

Can you give an example? (modular/systemic)

How is this specified in the contract?

Are you satisfied with the innovative outcomes? Yes/no, Why?

Is the *Supplier* able to develop or find new innovations for *client*? Example?

(What is currently limiting innovation for this case?)

### **Innovation level with governance**

How should innovation managed beside the contract?

How do you control innovation in *case*, conducted in the contract?

Is there a protocol?

How do you to stimulate *Supplier/Client* to innovate?

### **Decision making**

How is the division of management roles and what are the responsibilities?

How do managers understand the nature of the paradox (control – flexibility)?

What can individuals do to enable innovation through outsourcing? (p4)

### **Ambidextrous organization**

How should the decision making process be to ensure both innovation and control?

What can be done at organizational level to enable innovation in outsourcing?

And the relation with the size of the organization?

How does the ideal interaction between client X and supplier Y look like?

What are new opportunities to manage innovation within the decision making?

### **Final Questions**

What could be improved to achieve more innovation in the current relationship and contract?

Do you have anything to add (advice or comments)?

### Appendix III – Coding scheme derived from concepts

<b>Proposition</b>	<b>Concepts</b>	<b>Connection</b>	<b>Paradox (Lewis, 2000)</b>
Dual formal reviews	Contractual aspects Innovation aspects	Conflicting demands, reinforcing cycles	Confrontation
Matching level of innovation with governance	Contractual view Innovation driven view	Depends on type of innovation in the case	Transcendence
Dynamic decision making	Alternating roles	Responsibilities for innovation and contractual control	Acceptance
Extreme contracting	Pair of contract managers	One responsible for innovation, one responsible for contractual control	Acceptance or confrontation
Structural ambidexterity	Using two teams	Focus respectively on contractual and on innovation aspects	Acceptance
Temporal ambidexterity	Oscillating organization structures	Oscillating between structures within organization	Acceptance