Fostering Innovation and Trust when Contracting Service Suppliers

A Case Study at a Retail Company

JONAS FLORÉN

MARCUS KIAN ROUSTA
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Jonas Florén & Kian Rousta

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Abstract

Manufacturing and retail companies outsource their logistics activities to third party logistics providers to focus on, and enhance, core competencies. Outsourcing is associated with several benefits, e.g. decreasing costs and more flexibility, but it also inherent risks. Uncontrollable behaviours and suppliers that only act in their own self-interest are common issues that arise and prevent expected results. During the 21st century, the digitalisation has constantly required companies to acquire new capabilities to cope with new technologies and how to use them to gain competitive advantage. Therefore, companies choose to outsource IT for the same reason they outsource logistics. This paper aims to compare outsourcing of logistics and IT outsourcing to draw parallels and highlight differences to create awareness about risks. A literature review on third party logistics, IT outsourcing and governance mechanism was conducted. In addition, a case study at a European retail company, henceforth called Alpha, was carried out. At Alpha, we have investigated how their IT department can work with their suppliers, application management service (AMS) providers, to foster innovation and trust. Further, we discuss how Alpha can work with performance measurements to run the IT services in a resource efficient way. The case study was carried out through two rounds of interviews with employees at Alpha.

The result shows that there are several similarities between third party logistics and IT outsourcing. The result can be used to create awareness of risks that can arise when outsourcing IT. The difference was that studies concerning IT outsourcing emphasized issues created by cultural and language barriers, which is not mentioned in studies regarding third party logistics.

Moreover, we present a proposal for six areas of improvement for Alpha which can be seen as a foundation for further research.

The proposals that we have put forward are as follows:

- Develop a travelling agenda for Alpha’s employees to visit service suppliers.
- Establishing an innovation fund together with AMS providers
- Introduce performance based contracting for AMS providers
- Review how Alpha work with and perceive KPIs
- Develop a new best practice when contracting AMS providers
- Review suppliers role in service development and running business
Sammanfattning


Resultatet visar att det finns flera likheter mellan att outsource logistik och IT. Resultatet kan användas till att skapa medvetenhet om vilka risker som kan uppstå när man outsource IT. Skillnaden var den språk- och kulturbarriär som uppstår när man outsource IT till företag som ofta är baserade utomlands, något som forskningen kring tredjepartslogistik ej berör.

Vi presenterar även sex förbättringsförslag för Alpha som kan utgöra grunden för framtida analys.

De sex förbättringsförslagen är:

- Utarbeta en resplan för anställda på Alpha för att besöka AMS leverantörer fysiskt
- Introducera en innovationsfond tillsammans med leverantörer där en procentuell andel av kontraktets kostnad går till fonden för att främja innovativt arbete.
- Införa performance based contracting med AMS-leverantörer
- Utföra en granskning av hur Alpha arbetar med mätetal (KPI)
- Etablera en ny best practice vid samarbete med AMS leverantörer
- Utreda AMS leverantörernas roll i utvecklandet av nya IT tjänster
Preface

We would like to start by thanking our contact person at Alpha for giving us the opportunity to conduct our study at their department. We would also like to thank the employees at Alpha for taking their time to participate in our interviews. Their input has allowed us to gain valuable insights and ideas to use for our study.

Lastly, we would also like to thank our supervisor at KTH, Lasse Wingård for helping us writing this thesis and contributing with improvement inputs to increase the quality and credibility of this paper.
Abbreviations

3PL - Third Party Logistics
AMS - Application Management Service
CR - Change Request
GDP - Gross Domestic Product
GM - Governance mechanism
IS - Information Systems
KPI - Key Performance Indicator
KRI - Key Result Indicator
MSA - Master Service Agreement
PBC - Performance Based Contract
PI - Performance indicator
RI - Result Indicator
SC - Supply Chain
SDD - Service Delivery Department
SDM - Service Delivery Manager
SDO - Service Delivery Owner
SLA - Service Level Agreement
SSD - Service Support Desk
TIS - Technical Innovation System
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1. Background

According to the Statistics Sweden services make up for 70% of Sweden’s GDP whilst the production of goods constitutes 28% (Statistiska Centralbyrån, 2012). It has become increasingly important for companies producing products to also offer different services to satisfy customer needs, e.g. home delivery, assembling service etc. Customers demand better service and want to have memorable experiences (Eldimir, F. et al. 2016).

This means that manufacturing and retail companies need to offer services in addition to their products. Today, competition is fierce and companies use outsourcing to focus on and enhance core competencies whilst increasing flexibility and lowering costs. Manufacturing companies outsource their logistics activities to third-party logistics (3PL) to gain competitive advantages. The focus of the outsourcing have shifted from basic transportation and storage to more complex services and logistics to match customer needs. (Marasco 2008)

During the 21st century the world have shifted into a digital era. The digitalisation constantly changes previous market scenarios and companies must become more agile to manage these changes. Companies need to work in a different way in order to close the capabilities gap caused by the digitalisation (Orlandi, L. 2016). Similar to the way companies use 3PL to focus on core competencies and achieving more agility, companies now outsource IT because they do not possess the right type of knowledge. Studies on IT outsourcing have increased by nearly 92% between 2010 and 2018 while studies on 3PL has increased with 41% during the same period, according to number of published papers on Science Direct. Hence, the market calls for further knowledge within IT outsourcing.

According to Kayikci, Y. (2018) the integration of IT into the SC will “further improve logistics processes, optimise workflows and reduce lead time”. According to the World Economic Forum digitalisation in logistics could bring a value of USD 1.5 trillion by 2025 (WEF, 2016). In 1993, 3% of the worlds recorded information was stored digitally, this number was 97% at the end of 2007 (Stuermer, et al. 2017). This has resulted in more systems that communicate with each other through interconnections. This demands a constant availability of companies’ applications. Lack of availability could cause damage to several processes and give rise to high costs (Kayikci, Y. 2018). This puts pressure on companies to contract proficient IT suppliers that satisfy the buying organization’s needs. Thus, henceforth, our focus will be on IT suppliers that support the platform on which companies’ IT systems run, i.e. making the IT run without disruptions and with high availability, this is called application management.

We choose to include studies regarding 3PL as the nature of logistics outsourcing is similar to IT outsourcing e.g. contracts, relationships and governance mechanisms (Huo et al. 2015; Fraga et al., 2017). This decision is further based on the fact that more studies have been conducted within outsourcing of logistics than the outsourcing of IT. A search for “Logistics
outsourcing” gets 162 000 results whilst “IT outsourcing” gets 30 900 results on Google Scholar. As there are significantly more studies within outsourcing of logistics we believe that these studies have had more time to mature and hence could provide important insights.

Kayikci, Y. (2018) and Stuermer, et al. (2017) advocates that digitalisation within a company’s supply chain is vital for the business and could save money as much as it could increase revenue. The digitalisation changes previous market scenarios and companies need to adapt their capabilities to cope with these changes. IT outsourcing is one way for companies to digitalise whilst still being agile and focus on core competencies. Although the number of studies within IT outsourcing is increasing, studies about supplier-led innovation and the importance of a collaboration characterized by trust within IT delivery is scarce. Supplier-led innovation means that the supplier is engaged in development projects to perform incremental or radical improvements rather than to just deliver what the contract says. This study aims to contribute on how to collaborate with IT suppliers and which governance mechanisms that should be used to foster a prosperous business relation without one part being disadvantaged.

In addition to a literature review on governance mechanisms, 3PL providers and IT outsourcing, a case study was conducted at a European retail company, henceforth called Alpha. The purpose was to increase our knowledge within the field. Alpha have extensive knowledge and experience within supply chain and have had an increasing focus on digitalisation during recent years. Our case study was conducted at Alpha’s IT department whose focus is to support the business, i.e. to make the supply chain’s IT or sales program run without disruptions. Our intention was that the case study, in addition to the literature study, would lead to concrete insights that are useful when contracting IT suppliers.

The remainder of this paper is organized as follows: Firstly, we give an introduction to Alpha’s IT department and highlight its important functions. Secondly, we review the literature on 3PL and governing mechanisms to understand what type of contracts and behaviours that foster a good relationship. We choose to conduct a thorough analysis within this subject as we believe that it could contribute with valuable findings and best practices. Thirdly, we analyze IT/IS outsourcing with a focus on governance mechanisms to foster good results. After the literature study we present the case study followed by an analysis regarding theory and practice (case study). We will conclude with a presentation of the results, together with performance improvement suggestions for Alpha. We end with a discussion of the study’s scientific contributions and impact on Alpha, as well as its credibility and limitations, and finally suggestions for future research.
1.1 Introduction to Alpha’s IT department

Before reading any further, some clarifications needs to be done. Our case study was conducted at the service delivery department (SDD) of Alpha and to properly understand their objective, SDD must first be placed in its context at Alpha. Below is a short outline of the IT department in general, followed by a more thorough description of the SDD.

**IT department**

The IT department at Alpha is responsible for the development, operation and infrastructure of the IT systems that the company uses to run its business, see figure 1. They serve as a support function, meaning that their goal is to support various functions in such way that they can become more efficient, thus lowering the cost of manufacturing, logistics and retail. For example, a system calculating what types of products a truck should be filled with to utilize the maximum load capacity is the responsibility of the IT department to provide in order to support an efficient SC. It is important to recognize that this system could be interconnected with other systems, such as a system keeping track of stock availability. Therefore, the availability of IT services like these are critical for the business.

![The Application Life Cycle](image)

Figure 1, *Illustration of application service life cycle (Teamquest, 2017)*

The IT department is further divided into three main departments. Service development, service delivery and infrastructure. In our study infrastructure will be left out as it is not included in our scope.

**Service development department**

This department is responsible for the development of new, and existing IT services at Alpha to satisfy organizational needs. When an IT service has been developed, they hand over the operation of the service to the service delivery department (SDD). Between these two departments, there is a Service Level Agreement (SLA) that states what level of uptime or availability that the service development department demands from the SDD.
Service delivery department (SDD)
This is the department where we have conducted our case study. They are responsible for the operation of all the IT-services that Alpha uses in their daily business. The operation is outsourced to application management service (AMS) providers, thus making this department the connection point between the external service suppliers and Alpha. Between the SDD and the AMS providers there is a contract that states what requirements Alpha demands from their service suppliers, such as availability and support promise, see Key measurements used in MSA and SLA (pg. 12) for a description of these measurements.

IT-service agreements
At Alpha, there is two key contracts related to IT services. The SLA and the Master Service Agreement (MSA). The SLA is a internal agreement between the SDD and service development department whilst the MSA is between Alpha and AMS providers. Below is a description of what the main purpose of these contracts is.

Service level agreement
Every service have an SLA between the service delivery department and service development department. The SLA is an agreement between these departments that defines the level of service expected from the provider, in this case the service delivery department to be delivered to the service development department. The key measurements used in the SLA is availability and support promise.
Master Service Agreement
All Alpha’s AMS providers have a connected MSA which is a legal contract between the company and the external supplier. One definition of an MSA is:

“a contract between two parties in which both parties agree to most of the terms that will govern future transactions or future agreements.” (Vethan, C. 2018)

The purpose of establishing an MSA is to create a legal foundation that facilitates future transactions or agreements between the company and the supplier. This allows the parties to more efficiently negotiating the individual terms and details related to a specific service, rather than repeatedly negotiating the overall foundation that the MSA govern.

Key measurements used in MSA and SLA
For departments like service delivery, the availability for IT services is a crucial task to fulfil the SLA and MSA. Availability is the degree to which a service is operable and in a functional condition, often expressed as 100% minus unavailability (Toy, M. 2017). This is one of the key measurements used in the SLA and MSA.

The other key measurement, support promise is defined as:

\[
\frac{\text{(# problems NOT solved in time)}}{\text{(# problems reported)}}
\]

Where the definition of “in time” vary depending on how critical the operation of the service is for the organisation, which is agreed upon in advance.

End user interaction with IT department
When new services or functionalities are demanded, e.g. from sales personnel or store managers, the service development department receives this notice. Service development then investigates if there is sufficient gain for the overall business from adding such changes or new services. It is important to emphasize that change requests does not necessarily have to come from the end users. Changes in the infrastructure, SC or manufacturing process can also require new services to be developed to match organisational needs. For some services, the service development department uses external providers in the development process.

When the service has been developed and is ready for deployment, the service delivery department is responsible for the future operation. This is done by contracting AMS providers through an MSA. The process is illustrated in figure 2.
1.2 Problem statement and purpose

As the information in the background reveals, studies regarding supplier-led innovation within IT outsourcing are limited. Therefore, the purpose with this thesis is to contribute to the scientific research concerning IT outsourcing and the governance mechanisms that are important to consider for a successful collaboration. Moreover, we investigate governance mechanisms with service suppliers at Alpha to contribute with an industry perspective in addition to the literature study. More specifically, we will investigate how contracts and trust can affect innovation and continuous improvements in the daily work. This thesis has two main goals. Firstly, to contribute to the scientific research around AMS providers and governance mechanisms and provide knowledge for further research. Secondly, to contribute with valuable proposals to Alpha that could constitute as a basis for future improvement projects. This leads us to the following problem statements:

1. What governance mechanisms are important to be aware of when contracting AMS providers in order to foster innovation and continuous improvements?
2. How can Alpha work towards a collaboration with suppliers that is characterized by trust, and thereby foster innovation and continuous improvements?
1.3 Delimitations

In this report, we will only focus on the relationships between the service delivery department at Alpha and their outsourced IT suppliers, see figure 2. We will therefore not analyze inputs from end users or the service development department even if they have significant influence on the service that is being outsourced. The focus will be on how Alpha can manage services together with their suppliers to reach predetermined goals and good relationships. We exclude ourselves from analyzing potential improvements that can be done in the development phase that could simplify the application management.

In the literature study we have excluded research related to the procurement process or legal issues regarding contracts. Instead we will investigate how to improve current relationships and ways of working with AMS providers. Furthermore, we requested for interviews with personnel from Alpha’s suppliers but this request was denied.
2. Method

Initially, our purpose was to find a standardized way to write contracts towards IT suppliers. We therefore started our research with a general literature study concerning IT outsourcing, more specifically contract management towards IT suppliers. The purpose was to create an understanding of what studies that had been conducted and what issues that had been investigated in this field. The scope was to find case studies in the same market as Alpha. Keywords used were: service delivery, contract management, vendor management and IT outsourcing. The keywords were based on an introduction, through Skype, to Alpha’s IT department, explained by a manager at the service delivery department.

![Diagram](image)

Figure 3, Illustration of the chronological order of our research

The goal with the first round of interviews was to get a thorough understanding of Alpha’s IT department and what the employees saw as challenges regarding the contracts. Four interviews were held, the longest 3 hours and the shortest 1 hour, with an average of 1.5 h.

These interviews started with a description of each employee’s role at the SDD followed by an explanation of what they thought could work better in the organization. The first round of interviews indicated that the initial scope would not be sufficient to contribute to scientific research nor to evaluate Alpha’s contracts with suppliers using a scientific approach. The interviews gave an insight into what fields to investigate further. This means that some of the literature we had used to prepare for the interviews were not useful for further research as the scope came to change and were therefore disregarded.

Based on the first round of interviews, we conducted further research where we changed our keywords when searching for literature, to: 3PL, Logistics outsourcing, IT outsourcing, Term specificity and Key Performance Indicators. In addition to the adjustment of keywords, we prepared semi-structured interviews for the second round. The same employees that were interviewed in the first round were also interviewed during the second round.

The questions asked during the second round of interviews are listed in chronological order below.
Questions asked during second round of interviews

Contracts
- How much freedom do Alpha give to their AMS providers to operate?
- Is there any performance based contracts today and what do you think about such a model?
- Does Alpha have any second-sourcing plan?

Measurements
- How is measurement tools produced and what are their purpose in the everyday work?
- Do you think the KPIs used today could improve?

As can be seen, there is no question regarding innovation and continuous improvements but this topic was the most usual topic to talk about when we asked the first question about contracts.

The focus was primarily on the relationship with suppliers but also governance mechanisms. Each interviewee gave their own point of view and chose to deep dive within different areas. We believe this is normal, as every person views the company from different angles. The average interview took 1.7 hours. With the longest being 3.5 h and the shortest 1 h. The difference in time is mostly a result of the interviewees type of answers.

During the same phase as the second round of interviews were conducted, two additional interviews with managers at other departments than IT was conducted as well. The interviewees were store managers and contributed with valuable ideas. Our initial purpose was to get insights from the end users of the IT services but as our research continued, these interviews proved to be out of scope. The store managers’ thoughts are important for the development of services but as our scope only includes supplier-led innovation and collaboration with AMS providers we chose to not include these interviews in this paper.

The second round of interviews contributed to a profound foundation to further conduct research on. These set of interviews informed the selection of the specific literature research and the information to be obtained from them. New keywords that were used were: 3PL, Logistics outsourcing, Governance mechanisms, IS outsourcing and Application management. As earlier mentioned, studies within supplier-led innovation within IT-outsourcing are limited. This supported the usage of research about 3PL in the literature study. The choice of using 3PL literature is further based on the fact that the two fields have similar characteristics such as, contracts, relationships and governance mechanisms (GM). We will therefore start our literature study with an analysis of governance mechanisms when contracting 3PL providers and thereafter analyze what GM that foster supplier-led innovation.
3. Literature Review

In this chapter we will introduce previous research results that we have used when conducting our research. As previously mentioned in the method chapter above, some of the literature that we first thought was relevant for the subject was later shown not to be applicable for our scope and will therefore not be included in the report. Below is therefore the outline of what we found relevant and applicable after our first and second set of interviews.

3.1 Outsourcing

Outsourcing logistics

Companies outsource logistics to third-party logistics (3PL) providers to engage more focus on enhancing core-competencies. Marasco, A. (2008) studies benefits companies could gain from outsourcing logistics. His results show that companies could save:

- 11.8% on logistics costs,
- 24.6% on logistics assets,
- 8.2% on inventory costs,
- 45.1% in average lead time (from 7.1 days to 3.9 days)

Other studies show that most outsourcing attempts fail due to untraceable supplier behaviour and lack of competence evaluation (Tsai et al. 2012; Langley et al. 2006). Furthermore, outsourcing to 3PL providers does not necessarily result in satisfactory performance. The complexity of collaborations with 3PL providers can result in uncontrollable behaviour of the providers. A common phenomenon when outsourcing to 3PL providers is opportunism, meaning that suppliers only act in their own self-interest (Zhou and Poppo. 2010). Opportunism is often a result of bad relationships between the buyer and supplier and Huo et al. (2015) find that opportunism depends on trust and contracts. This calls for governance mechanisms. (Zhou and Poppo, 2010; Laaksonen et al., 2009)

Liu et al. (2009) divide governance mechanisms into transactional and relational mechanisms. Transactional mechanisms can be economic incentives whilst relational mechanisms emphasizes the importance of working towards the same goals and values. Contracts and trust are important factors in governance mechanisms. (Liu et al. 2009)

Yang et al. (2016) analyzes various governance mechanisms under different circumstances with the goal to identify when to use which mechanisms. Their results show that “Technology uncertainty is positively related to the use of contracts” i.e. contracts are more common when companies work in a technologically uncertain landscape. Technological changes are unpredictable and often change the systems in which companies work, within logistics this could be delivery systems and programs optimizing the flow of goods. If firms are incapable
of coping with these changes their operations will be highly affected. This resonated for a contract that specify different aspects of technology changes and whether buyer or supplier is responsible and what actions that are necessary to take. In addition to contracts to cope with technological uncertainty, relational mechanisms should be used. Firms need to build intimate relationships with their suppliers to work towards the same goals. Then, when a new technology occurs it can be used to benefit both sides. (Yang et al. 2016)

Huo et al. (2015) differs between two types of contracts, detailed contracts and contract application. “Detailed contracts describes the extent to which contracts explicitly specify both parties’ expectations, roles and responsibilities, and provide guidelines for unanticipated contingencies that may occur prior to actual transactions”. On the other hand contract application explains to which extent the contract can control the supplier’s behaviour. This means monitoring and penalizing to avoid unexpected behaviours. If the buyer applies contracts that micromanage the supplier, the risk for opportunistic behaviour increases. The partners should have equal positions and work towards mutual interest, elsewise, the disadvantaged party might take every chance to behave opportunistically. Furthermore, trust is the basis of 3PL relationships and both parties should strive for long-term collaboration to gain synergies. Therefore, detailed contracts suppresses opportunism whilst contract application can induce opportunistically behaviour. (Huo et al. 2015)

**Outsourcing in the construction industry**

Bingol, B. & Polat, G. (2017) analyze outsourcing in the construction industry and emphasize that construction activities are becoming more usual to outsource. In most construction projects subcontractors perform the actual construction at sites and contractors control and coordinate their work. As subcontractors do most of the work their performance is highly correlated to success of the project. In Chiang Yat’s study from 2009 it is stated that as much as 80% of the value of construction projects in Hong Kong is undertaken by subcontractors. Thus, the process of choosing the right subcontractor is vital for construction projects. According to Bingol, B. & Polat, G. (2017) the selection of subcontractors is often based on the lowest bid or experience from earlier collaborations but this could result in unwanted results. Firstly, basing the choice of subcontractors on the lowest bid may result in inexperienced or unprofessional subcontractors which could at the end of the project, result in higher costs. Moreover, Oviedo-Haito et al. (2013) argued that low-tier subcontractors use cheaper labour and equipment which impacts performance and results in a project of low quality. Secondly, working with known subcontractors may inhibit competition and negotiation processes. Furthermore, the use of new technologies and innovations becomes less attractive as subcontractors know they will be chosen based on earlier relationships. Choosing subcontractors based on former relationships does not pressure the subcontractors to improve their service as they know it will not influence the choice of subcontractor. Therefore Bingol, B. & Polat, G. (2017) suggest a performance measurement framework to evaluate subcontractors based on:
1. General performance e.g. transparency or responsibility, but also involvement in cooperative work on previous projects.
2. Communication skills, e.g. ability to discuss unexpected situations or to brief subcontractors.
3. Past relations, e.g. performance on previous works or number of unsolved disputes with contractors.

The purpose with the study was to help contracts choose the right subcontractors. (Bingol, B. & Polat, G. 2017)

Information System (IS) / Information Technology (IT) Outsourcing

Fraga et al. (2017) study risks when outsourcing IS. Their study includes a survey answered by 200 CIOs in Portugal, and highlights of key risks of IS outsourcing. Their findings show that CIOs see risks by staying tied to one supplier in a dynamic market and creating a dependence. Moreover, “Unexpected costs ” is a common risk to mention. Unexpected costs can be related to the management of contracts or misunderstandings caused by cultural or language barriers. Fraga et al. (2017) do not provide any solutions to the identified risks but instead seek to increase awareness.

Chou, D. & Chou, A. (2009) divide the IS outsourcing life cycle into three periods: pre-contract phase, contract phase, and post-contract phase, and they identify potential risks during the different periods. The first phase is described as the phase where companies identify whether they should outsource their IS systems or not. If companies choose to outsource, they need to be aware of the risks such as a “inadequate outsourcing plan and lack of outsourcing strategy”, supplier lock-in i.e. when the supplier is integrated in the buyer’s organization to an extent where it would be costly and time consuming to change supplier, lack of trust, and hidden costs. The second phase is characterized by choosing methods to manage the outsourcing project. According to Chou, D. & Chou, A. (2009), companies could statistical methods to manage the outsourcing and evaluate the risk of a project, i.e. identify factors that are critical for the success of the project. Companies often try to reduce cost as it is the major reason to outsource, but Chou, D. & Chou, A. (2009) argue that high quality and low risk should be prioritized before low costs, as it is more correlated to successful projects. (Chou, D. & Chou, A. 2009)

Offshore outsourcing of information systems (IS) is seen as a way to achieve strategic advantages. Offshore outsourcing is when the company responsible for the outsourced activities are based in another country than the buyer. According to Harbi, A. (2013) the picture of outsourcing is often reflected by benefits and issues correlated to IS outsourcing are often overlooked. Furthermore, Harbi argues that outsourcing is partly a result from wanting to reduce costs, but that there are several issues that could hinder success. Two issues that are mentioned are:
1. Lack of innovations and continuous improvements
2. Vendors focus on invoicing for new services, that are not agreed upon in advance, to increase revenues

The first issue is due to several reasons. Firstly, the price model in the contract foster different behaviours. A fixed price model results in a high standardization whilst outcome-based pricing fosters agility and innovation. Secondly, the exploitation of opportunism by either supplier or buyer. (Harbi, A. 2013)

The second issue is a result of weak analysis of requirements in the initial phase as Chou, D. & Chou, A.( 2009) state. This results in a supplier that generates insufficient work and requires more resources. It will also lead to hidden costs such as spending time communicating and managing suppliers. Cultural and language differences is two of the issues that arise during the outsourcing process. For example, the contractor’s employees and the buyer’s employees may have difficulties to resolve problems due to difference in language and culture. (Harbi, A. 2013)

Analysis of outsourcing in different industries

Section 3.1 shows that there are several similar characteristics between outsourcing logistics, construction and IT. The main purpose of outsourcing is to cut costs, but as previous research in section 3.1 reveals this is not always the result. Managing the relationship with suppliers is of significant importance as a lack of trust can result in opportunism and increased costs (Zhou and Poppo. 2010; Huo et al. 2015; Harbi, A. 2013).

Both Chou, D. & Chou, A. (2009), IT, and Bingol, B. & Polat, G. (2017), construction, emphasize the importance of not choosing suppliers based on solely cost as it could result in poor quality. This could during the project lead to increased, unforeseen costs. Furthermore both studies describe the risk of using the same supplier several times. This is because it could inhibit competition and negotiation processes. When choice of supplier is based on previous relationships suppliers are less likely to introduce new ways of working.

There are also differences between the three industries. IT suppliers are often based offshore while construction and 3PL providers are based onshore. Therefore, language and cultural barriers play a significant part when outsourcing IT. (Harbi, A. 2013)
3.2 Service planning and Service delivery

Figure 4, *The connection between Delivery planning and Service Delivery (Meier et al. 2013)*

Figure 4 demonstrates the structure of developing and monitoring an IT service. First, there is delivery planning where the service is produced and developed. Later, delivery planning hands over the service to service delivery to implement the service in the organization. Service delivery is responsible for the availability of the service i.e. that the IT-service should work smoothly and be available in the everyday work (Meier et al. 2013).

Lacity & Willcocks (2017) analyzes conflict resolution in service outsourcing through several case studies. They emphasize the importance of not blaming one part, but instead both supplier and buyer should co-own the problem. This is important when finding the root cause of a problem which requires both parts to be transparent with all data.

In their research, they find that buyers should not try to micromanage the supplier’s resources, e.g. human resources. Instead of interfering with their work, buyers could require mandatory improvements every year in productivity (Lacity & Willcocks, 2017).

3.3 Performance Based Contracting (PBC)

Performance based contracting (PBC) sets a desired level of performance, results, rather than the process and the inputs to achieve those results. This is also called low term specificity in contract management (Sumo et al. 2016). A high level of term specificity is characterized by restrained freedom for suppliers in designing, managing and executing the outsourced services. Sumo et al. (2016) means that the term specificity affects innovation in outsourced service deliveries. In their paper two cases studies are analyzed, with supplier Charlie and Delta. In the first case, low term specificity allowed the supplier, Charlie, to perform its duties
in a way it thinks best. The supplier received a monthly payment and if the scope of the work needed to expand, the monthly payment would increase. The contract specified penalties that the buyer can claim if the IT application is not available at the agreed percentage. The low term specificity and low degree of micro-management from the buyer resulted in the Charlie being more innovative than Delta and constantly improving the service.

The second contract, used with supplier Delta, was also characterized by low term specificity, but in the day-to-day operations the buyer’s enterprise architects interfered and limited the supplier’s activities as it deemed best. Moreover, all IT initiatives from Beta were to be approved by the buyer’s IT division. This resulted in the supplier not engaging in performance enhancing activities.

The plausible explanation for the different outcomes could, according to Sumo et al (2016), be that the PBC with Delta concerned a new contract form being applied to an existing relationship, but the PBC with Charlie was a new relationship. The prior contract between Delta and the buyer had been more prescriptive (Sumo et al. 2016).

Nullmeier et al. (2016) analyzes two different cases of outsourced cleaning. In the first case the supplier is evaluated based on three KPIs: quality (cleanliness of trains), safety (processes and tools/materials used), and personnel (education provided and employee satisfaction). Penalties and bonuses were tied to performance levels to improve cleaning quality by fostering innovation and efficiency. The bonuses were to be paid to the cleaning personnel whilst penalties were to be paid by the supplier. Their results showed that if the buyer micro manage the supplier, attributability is limited. The supplier’s employees will alter their behaviour based on the perception of outcome attributability to their input and effort. This means that if other factors than the efforts of the supplier’s employees impact the outcome, they are less likely to put effort in to their work. An example is given: Suppose that the supplier’s cleaning personnel are cleaning an office. One of the walls at the office contains a hole. The buyer will later collect data from people working in the office regarding the quality (cleanliness of the office). Employees could say, there is a hole in the wall and therefore a not so neat office. The cleaning personnel is not responsible for the damaged wall and are incapable of solving the problem, yet it affects their results. The outcome attributability is therefore low and weakens the incentives to put in effort among the cleaning personnel. (Nullmeier et al. 2016)
3.4 Innovation within companies

Creativity often translates into innovation within a company, but it is not only a matter of each employee’s creativity that leads the company into launching successful products. How should a company with several thousand employees foster creativity and work with it in a systematic way, going from an idea to a commercial product? Factors like the company’s structure, culture and incentives could either thwart or amplify creativity among individuals. (Schilling, A. 2013)

Nowadays it is usual with an intranet where employees can interact and share their thoughts, often called an idea collection system. In its most simple form, companies have a suggestion box where employees can put their ideas which will then be evaluated by managers. Most companies today have chosen to take this a step further and implement a more systematic way to harvest ideas. For example, Google utilizes an idea management system where employees email their ideas for new services or products. These emails later get processed and made available for other employees to read. Furthermore, it enables employees to interact with the ideas and vote for those that they believe have a potential for reaching commercial success. A dynamic way of interacting and evaluating different ideas lets early drafts to be altered and making a better fit for the company’s needs and stakeholders. (Schilling, A. 2013)

Companies also seek outside their own organization to foster innovation. There are many collaborations, including but not limited to stakeholders like customers and suppliers, joint ventures, licensing etc. According to Schilling, A. (2013), collaborative research is especially important within high-technology sectors. This is because it is not likely that a single organization possesses the knowledge or resources to develop or implement a significant innovation. Inter-firm networks enables firms to achieve more than they could do individually, because they get access to a wider range of information. Much like how the structure of a company affects innovation, the structure of the intra-firm network influences the flow of information and its accessibility to employees to utilize it. These collaborations often consists of companies with similar interests and it is not unusual that geographically proximity plays a role in which companies that join the collaborations, as example, tech companies in Silicon Valley. However, viewing Silicon Valley as a “science park” has led to overly exaggerated expectations on how to create industrial transformation, according to Rickne & Laestadius (2016).
3.5 Key Performance Indicators

There are according to Badawy et al. (2016) four key performance measures:

- **Key Result Indicators (KRIs):** These measurements show companies how they have achieved in a critical success factor, e.g. profit.
- **Result Indicators (RI):** Tells what you have done to achieve the KRI, e.g. reducing variable costs.
- **Performance Indicators (PI):** Tells what you must do e.g. negotiate third party logistics costs.
- **Key Performance Indicators (KPI):** Tells what companies should do to increase performance, e.g. improve procurement capabilities.

Badawy et al. (2016) uses an onion as a metaphor for how to perceive KPIs, see figure 5. Companies must breakdown their KRIs several steps to find how to they are affected in the organization. Finding KPIs is important to leverage improved results in companies’ KRIs. Badawy et al. (2016)

![Figure 5, Breaking down KRIs to find KPIs compared to layers of an onion](image)

Key performance indicators are mostly quantitative information and illustrates structures and processes of a company. Few companies monitor their true KPIs because of missing knowledge around the subject. Badawy et al. (2016) mean that most companies use outcomes, i.e. KRIs, as KPIs, whereas the purpose is to display where performance is lacking or thriving and what actions that should be made, based on KPIs, to achieve certain outcomes, KRIs.

Further, Peng et al. (2007) divides KPIs into two types. Leading and lagging indicators. Leading indicators measure activities that have a significant impact on future performance, e.g. number of employees with a master’s degree in a R&D department. A lagging indicator is a measure of an output of past activities, e.g. profit or number of new products for sale. Another example could be, number of sales meetings with customers during each week could be a leading indicators of sales revenue, whereas sales revenue would be a lagging indicator.

Peng et al. (2007) also argues that KPIs should be simple and few. Employees affected by the KPI should know what action that is required to reach goals and it should be easy to tie
responsibility between a team and a KPI. Moreover, there should be both financial and non-financial KPIs. (Peng et al. 2007)

**KPI implementation framework**

In his book Key Performance Indicators: Developing, Implementing and Using Winning KPIs, David Parmenter has developed a framework for how KPIs should be implemented in an organisation for it to be successful and contribute to increased performance and growth. (Parmenter, D. 2010)

Parmenter, D. 2010 states that a common mistake many organisations do when developing a KPI system is to start the process by choosing which KPIs to use without proper investigation and preparation for the new system to be implemented efficiently. This leads to little or no performance increase. The author likens the process of implementing a KPI system to painting the outside of a house, only if proper pre-work and preparation is done the result will be satisfying. Before the implementation of a KPI system, there has to be four foundation elements present for it to be successful. If any of the four foundation elements are missing, the KPI system will have small to no impact on performance. (Parmenter, D. 2010)

The four foundation elements are:

- Partnership with the staff, unions, and third parties
- Transfer of power to the front line
- Integration of measurement, reporting, and improvement of performance
- Linking Performance Measures to Strategy

There has to be an effective partnership between the management, unions, the staff, major customers and major suppliers for performance improvements to be pursued successfully. An example of this is an airline company that had to increase performance on planes that were behind schedule and about to land and getting the plane ready for the next flight, i.e. cleaning and refuelling the plane. They realised that their suppliers had a key role for achieving this performance increase. Instead of telling the cleaning and fuelling supplier to give the late plane high priority, they gave them access to their “late planes screen”. They then told the suppliers that if a plane was late, they had the preapproved authority to speed up the process. This led to significant improvement in the cleaning process, as well as in the fuelling process. The cleaning supplier doubled the cleaning staff for late planes, thus cutting the cleaning time in half and fuelling supplier had staff waiting at landing, ready to fuel the plane as soon as possible. This is also a result of the next foundation element, “Transfer of power to the front line”, as they gave the employees authority to take immediate actions if a situation had a negatively impact on KPIs, e.g. authorization to double the cleaning staff if a plane was late. (Parmenter, D. 2010)
There is also important for the employees to being able to develop and select their own performance measurements. Further, top-down and bottom-up communication is important. The staff should be encouraged to forward observations from the daily business, and the management should give access to strategic organizational information to the staff for them to better understand the KPIs and their impact on organisation performance. (Parmenter, D. 2010)

For measurements to be useful, a framework for measuring performance that results in actions has to be developed by the management. This means that the reporting process needs to be efficient and focused on decision making. The performance measurements should also be linked to the organization's critical success factors, i.e. elements that are vital for the organisation’s to be successful. (Parmenter, D. 2010)
4. Case Study

The case study was conducted at Alpha, introduced in section 1.1, to analyze and evaluate current work with AMS providers. The data gathering was made through interviews with employees at Alpha.

4.1 Description of interviewees

Semi-structured interviews have been carried out with employees at Alpha’s IT department, described in section 2.0. Their position and a short description of their responsibilities can be seen in table 1 below.

<table>
<thead>
<tr>
<th>Position at Alpha’s IT department</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations Manager</td>
<td>Overall responsibility for 20+ services and supervisor for SDM and SDO.</td>
</tr>
<tr>
<td>Contract Manager</td>
<td>Responsible for contract management</td>
</tr>
<tr>
<td>Service Delivery Manager (SDM)</td>
<td>Responsible to coordinate SDOs and to ensure that operations run smoothly.</td>
</tr>
<tr>
<td>Service Delivery Owner (SDO)</td>
<td>Day to day contact with suppliers to ensure further development. The SDOs works closest to the AMS providers</td>
</tr>
<tr>
<td>Infrastructure Manager</td>
<td>Responsible for the infrastructure on which the services run.</td>
</tr>
</tbody>
</table>

Table 1, Description of positions at SDD

We chose these interviewees as they are in different levels of the SDD and have different perspectives and goals. Furthermore, they have different experiences with the suppliers. The SDO is the one having closest contact with the suppliers whilst the SDM has the overall responsibility. An organizational chart of the interviewees can be seen in Figure 6 below.
4.2 Challenges concerning mutual effort

According to all the interviewees there are several challenges when working towards a collaboration characterized by trust and innovation. Measurements can cause unwanted behaviour and results such as the “ping pong effect”, both in-house and at the outsourced provider. The ping pong effect is a phenomena where the AMS providers “ping pong” the cause of a incident between themselves and Alpha, if a service run into problems. An “incident” is in this case defined as any type of problem that affect service performance or availability.

For example, if service “A” has an incident that causes the service to malfunction, the Service Support Desk (SSD) at Alpha receives a problem notice e.g. from an end user. SSD then investigates the root cause of this incident and if they are able to solve the incident themselves or not. If they aren't, they forward the incident to the AMS provider they believe is responsible or in position to fix it. This is where the ping pong effect can occur. When the AMS provider receives the problem, they also investigate to find the root cause. Sometimes the SSD has misjudged the root cause of the problem, meaning that the AMS provider receiving the problem is not responsible. When this happens, the AMS provider send the problem back to the SSD so that they can forward it to the correct team or AMS provider responsible. This is what AMS providers exploit for their own advantage. Having the opportunity to send the problem back and forth, the AMS providers can “pause” their resolution time for the problem. The ping pong effect is illustrated by figure 7.
As previously explained, support promise is a key measurement that is used in the agreements between Alpha and the AMS provider where the support promise is defined as below:

\[
\frac{\text{(# problems NOT solved in time)}}{\text{(# problems reported)}}
\]

This means that for the AMS provider to fulfil the MSA they have to fix the problems that occur to a service in a predefined amount of time. As their resolution time is paused for the problem when they are send it back to Alpha after receiving it, they can continue working to resolve the problem while SSD tries to figure who’s responsible for the problem. When the AMS provider receives the problem again after the SSD concluded that they in fact are responsible, they have had time to solve the problem while their timer was paused. This means that they fulfil the MSA towards SDD while in reality they breached their resolution time.

The main problem with this behaviour is that the same key measurement, support promise, is used in the SLA between the SDD and the Service Development Department. However, SDD’s resolution timer does not pause as the AMS providers does. This cause the SDD to breach the SLA while the AMS provider does not, whilst in reality they both breached.
4.3 Supplier led innovation and continuous improvement

When working towards supplier led innovation, Interviewee B mentions that even though contracts have changed to more flexible ones with more room for innovation, it can sometimes be inhibited by old routines referred to as “Business as usual”. This means that project managers from Alpha intervene in the daily work of the supplier i.e. micro controlling the supplier.

Several of the Interviewees mention that Alpha to some extent has successfully designed their contracts to focus on output. Today suppliers have to put a Change Request (CR) in a queue if they want to change some part of the service. Together with other change requests, both from Alpha and the supplier, it will be evaluated and launched quarterly. Interviewee B believed that if Alpha is to work in a more agile and transparent way, suppliers should have the freedom to make changes in the service without going through project managers at Alpha and leaving CRs. Interviewee D thought that this would be a impossible solution because vendors always want money for their extra work. Interviewee A also saw this as a challenge because changes to the system should be approved by Alpha who are responsible for the running and development of the service.

Interviewee B stressed the importance of “partnering” between suppliers and Alpha. This means that the division lines between buyer and seller should be partly erased and that the companies should work together towards goals. Interviewee C said that working together with the supplier to solve incidents is important, because, at the end of the day, it is the service delivery manager that is responsible for the outcome.

Interviewee F emphasized the value of not thinking “we and them” and to establish a good relationship with employees from the suppliers. The interviewee mentioned that the supplier’s employees often are afraid of doing wrong, or expressing confusion, to avoid being perceived as unskilled. Furthermore, the interviewee thought that relationships were strengthened as a result of meeting in reality.

Interviewee B also mentioned that Alpha together with a supplier have started an innovation fund. This innovation fund works so that for every payout that is made to the supplier, a certain percentage of this is earmarked to the innovation fund. This fund aims to promote projects and ideas that otherwise would not have got enough funding to be initiated. As this innovation fund is relatively new, no follow-up has yet been done to see if this has increased the amount of innovation projects between the supplier and the company. Interviewee B stated however that he believes that the fund is satisfying, by encouraging work together with the supplier to solve common problems. Furthermore, this innovation fund also gives the supplier incentives to work together with the company to find successful innovation projects, as new IT service will give the supplier the operation business of the service. This leads to a win-win situation, as it means more business for the supplier and efficient solutions for Alpha.
4.4 Measurements and incentives for continuous improvements

Regarding measurements and incentives, there were several points highlighted during the interviews. Every year the supplier has a target to reach e.g. an availability of at least 90%. If the suppliers were to exceed their targets, say at 91%, this will imply that Alpha will revise the contract and change the availability goal to 91% for the upcoming fiscal year. Furthermore, Alpha requires their suppliers to reduce their fixed costs by a certain percentage every year. This leads to the question: Why would suppliers implement efficient solutions if it only hardens their work for the upcoming year and they get less paid for it?

Interviewee C’s belief was that the current KPI: Availability, was not a true representation of the reality, referred to as “not being end user availability”. The problem according to the interviewee was that the service’s availability is measured on the overall availability rather than for every store. This means that the service has to be unavailable for more than 25% of the stores to trigger an “availability breach”. The interviewee meant that all numbers could be green even if there is one or several stores where some applications are out of function. In contradictory to that, interviewee D expressed concern that sometimes all services are functional yet they get red numbers, indicating that there is something wrong with the measurements.

Furthermore, interviewee C continued to describe that there could be a significant change in the way Alpha measures. Both interviewee A and C expressed that, measuring all incidents and reporting these would be impossible with their current way of working, as it would require too much resources. Interviewee C however, says the same thing, but believes that machine learning could be the solution, meaning that the process would be much automated. Of course an investment is required to implement such a system.

According to interviewee C, this could be implemented by using machine learning to collect and analyze all the incident reports for the services. It could analyze whether or not the incident reported is of critical nature, meaning that it could breach availability or if it is just a minor problem with small or no impact on business. Depending on incident criticality and incident type, prioritisation of which incident reports that should be forwarded to service support desk for further investigation can be done. This way, Alpha can handle much greater amount of data and therefore being able to spot deviations in service availability faster. Therefore being able to recognize and solve incidents before they escalate to cause availability breach.

When it comes to performance measurements, Interviewee C stressed that there could be difficulties with having the same KPIs for all the services. This is due to the different characteristics of each services. Some services could for example have lots of users whilst others only have a few users. The later can be services that only works as a support function, allowing another service to run properly, e.g. supplying it with different type of inputs or data. The interviewee believed that the services should have different KPIs and that they should be adapted after the specific service and its objective. If a service has impact on customers, it should have one follow-up routine, a service for transactions should have another routine.
According to Interviewee D, if a service has few users, there is few to none incidents per month, thus making the measurement numbers go bad fast if there is just a single breach. For example, if there are two incidents one month and one these incidents breach, e.g. if the incident is not resolved in time, there will only be 50% support promise for this service. The interviewee further stressed that KPIs needs to be updated frequently to stay relevant and that sometimes it is hard to understand what is actually being measured.

Interviewee E further discussed this and said that some of the KPIs are outdated and not relevant. This interviewee also stressed that KPIs should not be arbitrary, instead they should be simple and straightforward to understand. Furthermore, the interviewee expressed that Alphas IT should be IT for Business meaning that the focus should always be to support business in best way possible, which should be considered when choosing KPIs.
5. Analysis

This chapter will be dedicated to analyze 3PL’s applicability to our case study on Alpha. We will do this by analysing the differences and similarities we see between 3PL and AMS providers at Alpha. Later is then discussed how Alpha uses governance mechanisms such as KPIs to increase internal performance.

5.1 Comparison between 3PL studies and case study

The literature review revealed several areas of similarities between 3PL and IT-outsourcing at Alpha. Both 3PL and IT-outsourcing are used by managements to lower costs and to gain competitive advantage. Due to the complexity of outsourcing the results are not always satisfactory. The literature review further reveals that contracts, relationships, governance mechanisms and innovation is important when contracting 3PL providers and many of these elements were recurring during our case study.

Interviewee C revealed during the case study that Alpha worried about their suppliers acting in self interest. The interviewee argues that as soon as the supplier submit performance improvement suggestions they want to receive extra payment, even though the contract includes continuous improvements. Moreover, several of the interviewees mentioned the ping pong effects as a sign of suppliers prioritizing their own interest. It is important to emphasize that the interviewees knew this phenomenon occurred, but stressed that it in their beliefs was only to a limited extent that the suppliers exploited it. Even so, this behaviour is clearly described as opportunism according to 3PL studies and is partly resolved with governance mechanisms. (Zhou and Poppo, 2010; Laaksonen et al., 2009; Huo et al., 2015). Governance mechanisms should seek not to micro-manage the supplier, but to create a profound and equal effort and collaboration towards goals. In the case of Alpha, relational mechanisms could be implemented to a greater extent, as it emphasize the importance of working towards the same goals and values (Liu et al. 2009).

Our understanding from the second round of interviews was that employees at Alpha’s IT department believe that the suppliers’ work is partly characterized by opportunism. Interviewee A and D saw difficulties with giving suppliers more freedom, e.g. by allowing suppliers to do changes to the system without approval from Alpha. They meant that the suppliers would seek every opportunity to add additional fees by implementing improvements, it is therefore important for Alpha to act as a gatekeeper for changes made to the applications. Interviewee B and F emphasize the importance of partnering together with the suppliers and not talk in terms of “we” and “them”. Similarly, interviewee B meant that the distinction between supplier and buyer should be erased and that problems should be solved together. In this case it is important to introduce relational mechanisms to manage the relationship between the parties. According to Huo et al. (2015), if the responsibility is not equally balanced, the disadvantaged party might take every chance to behave opportunistically. As interviews revealed, Alpha’s employees do not fully trust the suppliers intentions. Presumably the suppliers notice this and feel disadvantaged, thus behaving...
opportunistically. In this case, detailed contracts would be suitable along with relational mechanisms to increase trust and collaboration according to Huo et al. (2015).

Lacity & Willcocks (2017) continue on the same line of thought, that blame should not be assigned to neither buyer nor supplier, but instead problems should be tackled together, indicating that there should be a mutual trust between both partners. Both parties should work to find the root cause of the problem, i.e. there should be a perception of co-owning the problem. Sumo et al.’s (2016) study further shows that suppliers who experience freedom and trust in their everyday work to a much higher degree involve in innovation and development of the service. Therefore their finding showed that low term specificity resulted in the supplier being more innovative and constantly improving the service as they did not feel micromanaged.

Even if not explicitly mentioned in the interviews, it came to our understanding that the same supplier was used every time the contract was rewritten unless the supplier had behaved badly. Furthermore, the supplier is highly integrated into the systems of Alpha, which increases switching costs for Alpha if they were to choose another supplier. This leads to reduced competition as the supplier gets a strong bargaining position. Bingol, B. & Polat, G. (2017) mention in their study that using the same supplier due to past relations could inhibit competition and negotiation process. They further describe that it could also reduce innovation as the supplier see no incentives to exceed the buyer’s expectation, because it does not affect the choice of supplier.

Moreover, Alpha includes, in their contracts, a requirement for suppliers to lower their cost with a fixed rate every year. Alpha uses this method to pressure the suppliers into implementing efficient solutions. By doing this, Alpha control the supplier’s behaviour and the supplier gets in a disadvantageous position, increasing the risk for opportunism (Huo et al. 2015). Furthermore, Bingol, B. & Polat, G. (2017) stress that the choice of supplier should not be based on the lowest bidding price as it may result in unqualified employees or increased costs later in the process. Pressuring the suppliers to continuously decrease the fixed rate could result in the same consequences as choosing the lowest bidding supplier, i.e. the supplier reduce the quality of the service and hence other costs may appear in the long run.

5.2 Fostering innovation internally and externally

Studies show that creativity and innovation is not only a matter of employee creativity but also about incorporating a systematic way to evaluate ideas and translate them into a commercial product or service (Rickne & Laestadius 2016; Schilling, A. 2013). Companies cannot just wait for innovation to happen, but must continuously work towards structures that encourages innovation and creativity. Alpha’s contracts consist of a short paragraph which states that Alpha expects suppliers to implement continuous improvements by finding new ways of working. These improvements have to be handed in to Alpha as change requests before being accepted and implemented. Interviewee A and D stressed that the suppliers always want an extra payment for a CR which makes it hard to let them implement it. In
Sumo et al.’s (2016) case study, all IT initiatives from the supplier were to be approved by the buyer’s IT division. This resulted in the supplier not engaging in performance enhancing activities due to two reasons. Firstly, it was time consuming to go through the buyer’s IT division which also could lead to a rejection. Secondly, by the time their improvement was approved it was already outdated.

Interviewee B mentioned that they are using an innovation fund in one contract with the purpose to foster innovation. An innovation fund is to some extent what Rickne & Laestadius (2016) and Schilling, A. (2013) describe as a process to drive innovation but they stress the importance of further creating clear and defined process and structures to foster new ideas.

5.3 Relationship and client involvement for mutual collaboration

The analysis of governance mechanisms when working with 3PL providers has showed that close collaboration is important for the success of projects (Huo et al. 2015; Liu et al. 2009; Lacity & Willcocks 2017; Sumo et al. 2016). There is one important difference between 3PL and AMS providers. 3PL providers often operate in the same country as the buyer, due to the nature of the service, and therefore no difference in culture or language occur. Many of the suppliers working for Alpha are based in another country, mainly India, which creates cultural and language barriers. This makes it more complex to work towards close collaborations characterized by trust. Operating in different countries limits the possibilities to get to know each other during informal events. In the theory of project management, kick-offs and team building sessions are important steps towards a successful collaboration between two organisations. It also has a positive effect on the start up time for new projects, meaning that the project team can more efficiently collaborate towards a common scope and goal earlier in the project. (Hamburger, D)

At Alpha, we have come to understand that there is currently no kicks-offs or team building sessions arranged with the suppliers. This might be due to fact that their suppliers are based abroad which makes it more time and resource consuming. Even so, informal client involvement is still essential for mutual collaboration between the parties, Chaudhry, Smita et al., 2018; Carbonell, P. et al., 2009 further shows that a good relationship between buyer and supplier has a positive impact on innovation speed and quality of the output from the supplier, thus having a direct effect on performance.

Relationships are also a critical factor to consider when new contracts are imposed. When conducting changes in contracts to foster innovation and trust, old relationships can still hinder the effect that the changes aim to create. Due to this, the daily work can still be characterized by old routines that inhibit innovation, it is therefore important to be aware of this phenomenon. Sumo et al. (2016) showed that the similar PBCs with two different suppliers had different outcomes. For the supplier where no relationships had previously been established, the PBC led to higher innovation and performance. For the other supplier, where the PBC were applied to a prior relationship, it failed to achieve its goals.
5.4 Measurement perception and alignment with overall business interest

Before reading any further a refreshment of the terms KRI and KPI is given. A KRI could be cost of goods sold and one KPI could be procurement capabilities, this demonstrates that a KPI highly impacts KRIs.

We have come to understand that the KPIs that SDD use are not measuring performance but instead results. Whether or not a measurements can be perceived as a result or not is highly dependent on the scope of the measurement. For example, availability might be a KPI for the IT department in general, as availability of their services is a key performance indicator in their work towards supporting business. For the SDD however, availability and support promise is the main goal to fulfil, meaning that for their department they are not indicators, they are results. The KRI availability should be broken down into key performance indicators i.e. measurements that highly impact the availability. It is important that employees easily can understand the KPIs so that they can take the right measures to increase performance and results. KPIs to availability could be, # of incidents, average resolution time per incident, average response time from service desk.

The studies of KPIs emphasize the importance of clear measurements that all employees understand. Through our interviews, we have drawn the conclusion that availability and Alpha’s role in the overall business is perceived differently among employees. We pursue with an example. Suppose a business critical service goes down, this affects the service delivery department’s KPI availability. At Alpha, availability is one of the measurements that the employees’ bonuses is based upon, thus having a service unavailable will have a negative impact on the employees’ bonus. If the cause of the incident is later fixed by either Alpha or the AMS provider responsible, they evaluate if the downtime had impact on end user, e.g. if the affected store was closed during the downtime it has no impact on business. This splits the opinions into:

1. SDD’s availability should be altered and corrected because it should not be affected by the downtime that occurred. Reason: No one got affected by the downtime and it should therefore not impact availability as a department KPI.
2. SDD’s availability should not be altered even though it had no business impact. Reason: Next time the service goes down it could be during opening hours. By altering the availability you only sweep the problem under the rug.

The service delivery department is a support function to Alpha’s business. Our perception is that this is being forgotten in the everyday work, where the focus is strongly on achieving department goals whereas the most important, at the end of the day, is if Alpha is able to use their IT services or not.

Furthermore Parmenter, D. (2010) stressed the importance for employees to have the ability and authorization to conduct the required measurements needed to hinder KPIs to not reach target. With the current setup of measurements, where availability and support promise is
highly dependent on other inputs which SDD might not have control over, the ability to react to failing numbers is limited. Because of this, the measurements will not be used for performance increase purposes, but rather for performance evaluation. (Parmenter, D. 2010)

For SDD, the AMS provider’s performance has a direct impact on SDD performance. Similarities can be seen between the airline company needing to increase performance on late airplanes and Alpha. In Alphas case, the AMS provider’s impact on performance is crucial, thus making their ability to respond to falling measurement numbers critical as well.

5.5 Best practice for resource efficiency

When deploying a new service, Alpha uses what interviewee C referred to as “best practice” to determine how much resources that is needed for a service to operate in a satisfying way, meaning that the support promise and availability is fulfilled. This might be a good way to ensure that not too much resources is used in the deployment phase of the service, and thus working in a resource efficient way, i.e. using as little resources as possible to fulfil support promise and availability. However, as the supplier most likely know about this best practice, they have no incentives to resolve problems in a efficient way with less resources used, as this will indicate that the current resources is enough. For the operation phase of the service, this means that their payment will be less than it could be if more resources were used in the deployment phase. As previously discussed, this is described as opportunism from the supplier side. A conflict of interest cause the supplier to act in their own self-interest rather than to ensure an efficient operation.

Interviewee A expressed concerns that some services which can be seen as “simple”, meaning that they have few incidents and are easy to run, still require much resources in the operation phase. In some cases, a simple service can be as resource demanding as a critical, complex service. This indicates that the resources efficiency vary from service to service. This can be due to opportunism from the supplier, but it could also be a result of the supplier’s end-to-end role in service development. For some services, the supplier does not only support service delivery when developing a new or existing service, but does also possess a management position in the development process. For all outsourced services, the supplier is responsible for the operation of the service. Having the same supplier responsible, or in management position, for both operation and service development can imply some risk and enhance behaviour that is not aligned with Alpha’s interest, see figure 8.
Figure 8, *illustration of supplier end-to-end role in service development and operation*

With the current payment method, where the suppliers get paid based on resources used for the operation of the service there is no incentives for the suppliers to develop a service that will require less resources for the operation of the service. This can imply a risk of creating unwanted behaviour from the supplier where they knowingly develop a service that will require more resources than what should be needed.
6. Results

AMS providers differs significantly from 3PL providers in terms of location. When the buyer and supplier operate in different countries issues concerning communication arise. Language and cultural barriers could therefore have a weakening effect on the collaboration. It is therefore important for managers to be aware of this problem and to implement continuous meetings and informal events to create better relationships.

Moreover, if organizations together with their suppliers want to work towards the same goals and values, it is important that there are mutual benefits from the collaboration. If one part is disadvantaged, their work will be characterized by opportunism, which will weaken the relationship between buyer and supplier. To avoid these behaviours the buyer must trust the supplier in their every day work, i.e. suppliers should have the freedom to act as they think is best to improve their own work.

To foster innovation companies must implement certain ways of working in the everyday work. There has to be more than contracts that demand continuous improvements. Innovation funds, as mentioned by employee B, or idea management systems are useful tools to foster new ideas.

Our analysis have resulted in six areas of improvements that we see Alpha can implement to run their business in a more efficient way. Our beliefs is that these improvements will contribute to a closer collaboration with their AMS providers that is characterized by trust and innovation. To increase internal performance, we have came up with a proposal regarding how Alpha should work with measurements as a tool for increased efficiency.

6.1 Building relationship for mutual collaboration

The importance of close relationships and client involvement is clear when working towards mutual collaboration and innovation. We therefore suggest a continuous travel agenda including SDMs travelling to the country of the supplier. We believe this is a way to strengthen relationships and to form more efficient work teams. We believe that visiting each other's countries foster cooperation and show suppliers appreciation of their work, and that their contributions are important for Alpha.

6.2 Performance based contracting for suppliers

We suggest to consider a new payment method together with eliminating the system of using last year's result as the new standard. This method includes a goal that Alpha sets together with the supplier, e.g. 90% availability. If the supplier delivers less they will be paid less and if they exceed targets a bonus should be paid to the personnel individually, see figure 9. The total bonus sum, is of course negotiable, but in the case we found it was an annual payment a maximum of 1.5% of the contract value that were to be shared between employees (Nullmeier et al. 2016). Further, we suggest that if Alpha were to pursue PBC, a new supplier should be
chosen to provide the services that are affected. This would put the suppliers in a more competitive position and eliminate the risk of letting old routines hinder the effect of the PBC.

![Performance Scale](image)

**Figure 9.** *Performance scale where e.g. availability can be set to a certain target in the MSA*

### 6.3 KPI for increased performance

As previously discussed, the perception of the measurements should be equal among the employees using them. Based on KPIs, an organization should know where the areas of improvement are, or which aspects of the company that are vital for the output. Alpha should therefore find leading indicators to work proactively against disruption in availability. One approach could be to collect the most usual errors causing downtime and use them as measurements.

We further suggest that the AMS providers should be authorized to have the ability to react to falling performance measurements as their actions have a direct impact on SDD performance. This can be done by giving the AMS providers access to Alphas service availability screen which allows them to work in a proactive way to fix issues before they escalate to cause an availability breach.

### 6.4 Innovation fund to foster radical change and collaboration

We suggest introducing an innovation fund in contracts with suppliers. This means that a certain percentage of the contract value is earmarked for a fund where both parties work together with innovation. To manage the innovation fund in a structured and efficient way we further believe an idea management system should be in place (Schilling, A. 2013). A collaborative innovation fund will foster trust but also a sense of working together towards the same values and goals. Additionally, we suggest an inter-firm system where raw ideas can be handed in and evaluated in a systematic way in the everyday work. A system where ideas can be evaluated and designed by both suppliers and employees at Alpha. This requires further research into idea management systems.
6.5 Development of new best practice for resource efficiency

To ensure that both the deployment phase and the operation phase of a service is handled in a resource efficient way, we believe that the current best practice framework need to be further developed so that it include the operation phase in a better way.

Our suggestion is that Alpha should develop a benchmarking system that benchmarks the services against each other and where performance is measured on resources used in the operation phase. We recommend that resources used per incident should be one key measurement and number of incidents another. We believe that an internal benchmarking system like this will allow for a better overview of how much resources a service should require to operate properly. It will also put the AMS providers in a more competitive position, as their services will be benchmarked against others. We believe that this will make it easier to identify services that can be operated more efficiently, therefore making it easier to cut cost.

6.6 Suppliers’ role in business development and running business

To create incentives for the suppliers to develop services that require as little resources as possible for the operation phase we have two suggestions.

The first suggestion is applicable if Alpha wishes to continue having the same supplier in charge of both the operation and development of a service. In this case, we suggest that Alpha change the payment model to their suppliers so that the supplier gets a fixed payout for the operation of the service instead of having the payment being based on resources used. The fixed rate should be based on forecast of the operation of the service with similar services from the internal benchmarking system discussed in 6.5 as reference. If the same supplier is responsible for both the development phase and operation phase, knowing that they will have a fixed payout for the operation, the supplier have incentives to ensure the operation will require as little resources as possible. This fixed payout can later be revised after a certain amount of time, where Alpha either can chose to switch to a resource based payment model or keep the fixed rate. Either way, as the supplier get a fixed rate during the deployment phase and early operation, they have enough incentives to develop a service that require as little resources as possible.

The second suggestion is that Alpha do not allow the same supplier to be responsible for the development of a service and to later be responsible for the operation. With this, the supplier that develop the service have no incentives to knowingly create a resource demanding service. It can however be argued that they also have no incentives to create a low resource demanding service. To create this incentive, we further suggest that the supplier that is responsible for the development get a variable payment based on the problem frequency the service later have in deployment and operation phase. This will encourage the supplier to develop a low resource demanding service, thus working together with Alpha to ensure resource efficient operations.
6.7 Summary of results

The proposals that we have put forward can be summarized as:

- Travelling agenda for Alpha’s employees to visit service suppliers.
- Establishing an Innovation fund together with AMS providers
- Performance based contracting for AMS providers
- Review how Alpha work with and perceive KPI’s
- Development of new best practice when contracting AMS providers
- Review suppliers role in service development and running business

If Alpha follow our suggestions we believe that their efficiency and performance will increase. This means that the organisation will see higher output from their department with less resources used for running business.
7. Critical reflection

7.1 Limitation

We see three limitations with our research that could have impact of the outcome.

Firstly, one major limitation during our research was that interviews were held only with employees from Alpha and not with representatives from their IT suppliers. This can result in a biased perspective from Alpha’s point of view and partly erode a holistic approach to this work. A lack of insight from IT suppliers and their perception of Alpha could leave out valuable information in a buyer-supplier relationship. To prevent these limitations to impact the result of our research we have used case studies in the literature review, where both the buyer and the supplier have been interviewed. This has created an awareness of certain characteristic issues that can occur in a buyer-supplier relationship and what problems the buyer and the supplier can encounter.

Secondly, the analysis of outsourcing within the supply chain was primarily limited to logistics. If further research would have been conducted, the outsourcing of manufacturing would be included as it contributes to a holistic perspective when outsourcing within the supply chain. Outsourcing manufacturing differs from 3PL providers as it often demands higher investments and results in lock-in effects and high switching costs for the buyer, therefore being more similar to AMS providers.

Thirdly, yet another limitation is that only one case study was conducted and therefore could only contribute with insights from the retail industry. It is therefore not possible to draw certain conclusion regarding similarities and differences between AMS providers between various industries, this will be left for future research. The purpose will instead be to generalize our findings to be applicable to several industries.

7.2 Credibility

In this thesis, much of the results and conclusions that we have come up with are based on the answers from the interviews. As all the interviewees are current employees at Alpha, one can argue that the answers are biased and therefore our conclusions might be as well. While this might be true to some extent, we still believe that the information we gathered from the interviews together with that from the literature study we did allowed us to maintain a critical approach towards Alpha’s current way of working. When doing interviews we believe that there will always be some bias from the interviewees’ part which might have negative impact on the credibility of the results.

As our goal with this has been to find new, better ways of working, it is important to emphasize that we have had no incentives to withhold or beautify our findings.
7.3 Future work

Our investigation of Alpha and their current way of working has proven that there are multiple areas that could benefit from higher efficiency or value if managed differently.

However, it is important to acknowledge the complexity of implementing these proposals as they require time, knowledge and resources. Our suggested proposals lays a foundation for further research, but merely gives a first insight to areas of improvement and future work.

Further work can be done by designating a project team to investigate the proposals. As our findings suggest and as employees at Alpha mention, it is easy to get stuck in old habits and routines within a company. Therefore, for this to be successful and truly lead to radical change, Alpha will need input and support from third party consultants specialized in the area, as they can contribute with successful best practices from other companies. The investigation team should therefore consist of employees from Alpha, at different positions, as well as external consultants.
8. References


